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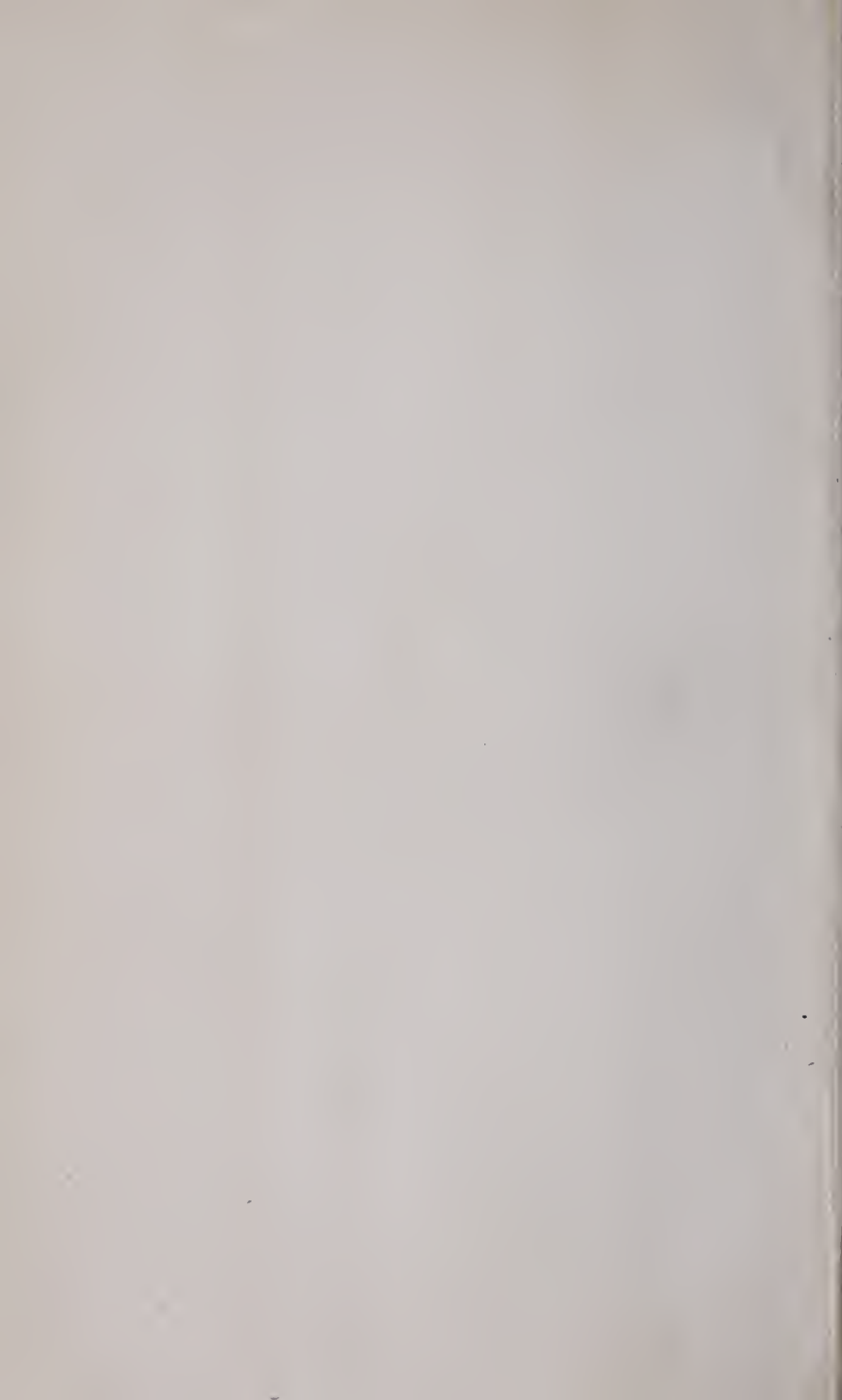
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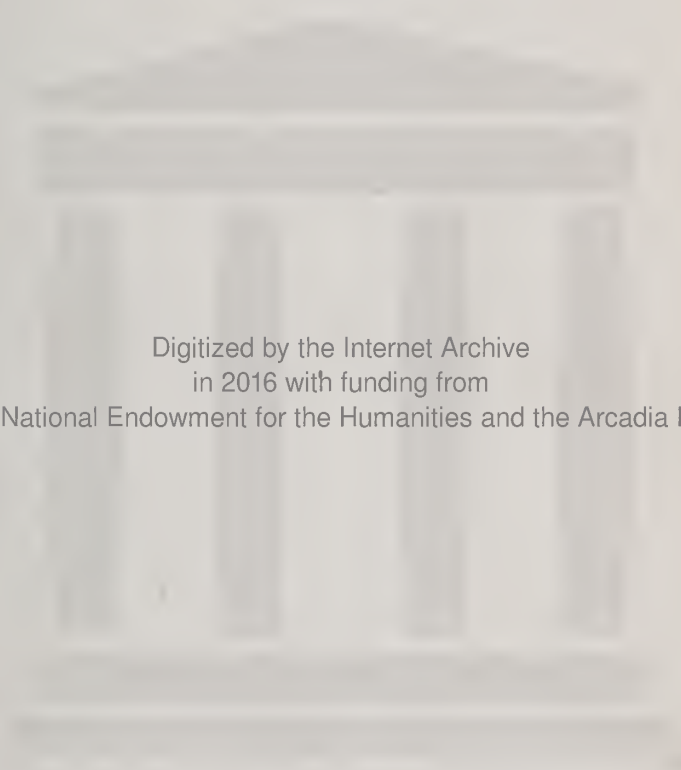


By Samuel S. Purple M.D.,
Of New York!

Dec 22 1877

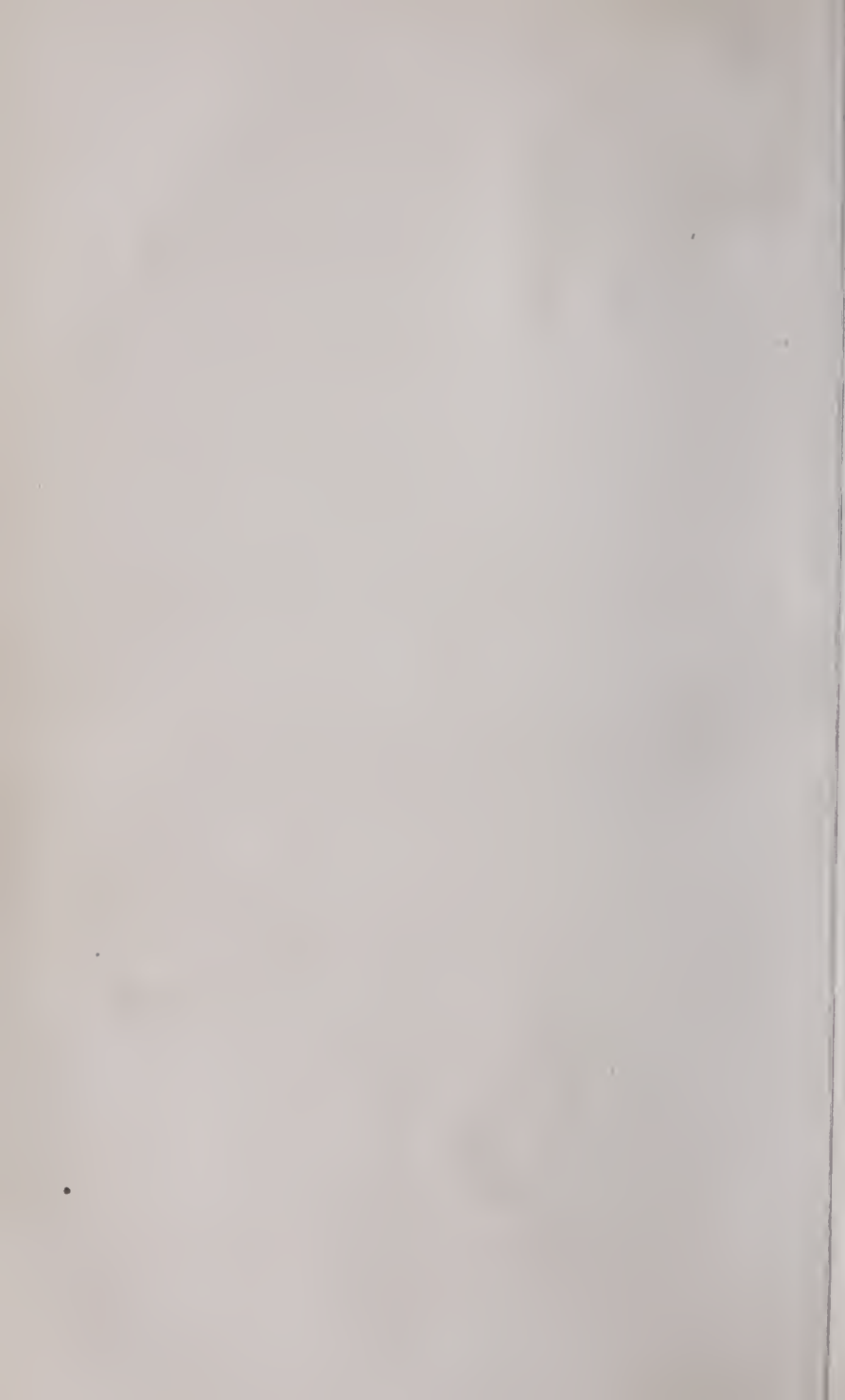






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THE
NEW ORLEANS
MEDICAL AND SURGICAL
JOURNAL,
DEVOTED TO MEDICINE
AND THE
COLLATERAL SCIENCES.

EDITED BY
A. HESTER, M. D.

JULY, 1849.



" Summum bonum Medicinæ, sanitas. "—GALEN.

NEW ORLEANS,
PUBLISHED BY WELD & CO., NO. 72, CAMP STREET.
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1849.

THE

AMERICAN CHURCH

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Anderson, Wm. D. to Jan'y, 1848,	5	Lowe, J. H.	"	"	5
Atchison, Matthew " "	5	Lyle, H.	July,	"	5
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Barton, " "	5	Murph, Jas.	July,	1849,	5
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TO READERS AND CORRESPONDENTS.

Our correspondents will please send in their communications for the *September* number of the Journal. We again request them to condense as much as possible. Short and practical papers are preferable to communications extended to a tedious length. Our aim is to be brief and to the point; and to this end we solicit the aid and co-operation of our friends.

Since our last publication we have received our usual *exchanges*, and the following papers and books for review :—[ED.]

We have received communications from Dr. E. Montgomery, of St. Louis, Mo., and Drs. J. S. Copes and S. A. Cartwright, of New Orleans, and Dr. D. B. Pierce, of La.

Our usual exchanges have been received. Also, the following books, pamphlets, &c.

I.—Practical Pharmacy: the arrangement, apparatus, and manipulations of the Pharmaceutical Shop and Laboratory. By F. Mohr, Ph. D., T. Redwood, and W. Proctor. Philad. Lea & Blanchard, 1849. (From the Publisher.)

II.—Report on the Sanitary Survey of the State of Massachusetts, March, 1849. (From the Committee.)

III.—Report of the Secretary of the Treasury, with the Report of Dr. Edwards on the practical operation of the law for the prevention of the importation of adulterated drugs and medicines. January, 1849. (From Dr. Edwards.)

IV.—Report of Dr. Edwards, Chairman of the Select Committee on imported adulterated drugs and medicines, &c. June, 1848. (From Dr. Edwards.)

V.—Report of Dr. T. O. Edwards, to the House of Representatives, on Patent Medicines. February, 1849. (From Dr. Edwards.)

VI.—Summary of the transactions of the College of Physicians of Philadelphia, from February, 1849, to April, 1849, inclusive. (From Secretary.)

VII.—A case of Carotid Aneurism, and some remarks on the Diagnosis of that Disease, published in the Southern Medical and Surgical Journal, with comments thereon by Prof. Eve, and a reply. By James M. Green, M. D., Macon, Ga., 1849. (From Dr. Green.)

VIII.—Prof. Lee's Valedictory Address to the graduating class of Geneva Medical College. Published by the class. Buffalo, 1849.

IX.—Annual Circular of the Medical Department of the University of Louisiana, session of 1849-50. (From the Dean.)

X.—Philosophy of Medicine. An Address before the Franklin College, Ga. By Prof. Leconte.

XI.—Effects of Chloroform and of strong Chloric Ether, as narcotic agents. By John C. Warren, M. D. Boston, 1849. (From the author.)

XII.—Maternal Management of Children, in Health and Disease. By Thos. Bull, M. D., Member of the Royal College of Physicians. Philad., Lindsay & Blakiston, pp. 406. (From Publishers.)

XIII.—Anæsthesia, or the employment of Chloroform and Ether in Surgery, Midwifery, &c. By J. Y. Simpson, M. D., F.R.S. E., Professor Midwifery in Edingburgh University, Physician Accoucheur to the Queen in Scotland, etc. etc. Lindsay & Blakiston, 1849. pp. 248.

XIV.—Boston Medical Journal, Extra, containing the proceedings of the first meeting of the American Medical Association, at Boston, May 1st, 1849. (From Editor.)

XV.—Address, delivered before the Alabama Medical Association, March 7th, 1848. By T. W. Mason, M. D., Montgomery, Ala. (From Author.)

XVI.—Medical Reform; an Address delivered before the Montgomery Medical Society, at Clarksville, Tenn., May 19th, 1849. By N. L. Thomas, M. D. (From the Author.)

XV.—Introductory Lecture to the Summer Course of 1848, in the Philadelphia College of Medicine. By Professor Gibbons. (From Author.)

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THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

JULY, 1849.

Part First.

ORIGINAL COMMUNICATIONS.

AN ACCOUNT of the *Yellow Fever at New Orleans, in the year 1848*,
By E. D. FENNER, M. D. To which is added, *Letters on Yellow
Fever, from W. McCRAVEN, M. D., of Houston, Texas; J. B.
PORTER, M. D., Surgeon U. S. A.; P. B. McKELVY, M. D., of St.
Francisville, La.; and W. A. BOOTH, M. D., of Thibodauxville,
Louisiana.*

In continuation of my humble efforts to contribute what I can towards the medical history of the time, I shall, on this occasion, endeavor to lay before the profession, some account of the fevers which prevailed in the city of New Orleans, during the summer and autumn of last year, together with such facts and circumstances as appeared to have a bearing on the question of the *contagion of Yellow Fever*. Altho' the sickness of the season was not so fatal as that of many others, still the year will be remembered, on account of the return of our victorious army from the conquest of Mexico; the greater part passing directly from the infected city of Vera Cruz, the perennial abode of Yellow Fever, to the city of New Orleans, where it only prevails at irregular intervals. The city of Vera Cruz had been in our possession for a little more than twelve months previous to the termination of the war; and being on the direct route taken by the main body of our invading army towards the capital of Mexico, it necessarily became a great

thoroughfare. The intercourse between that place and this, was uninterrupted, and almost incessant, throughout the time. In my account of yellow fever at New Orleans in 1847, I presented to the readers of this Journal, (see September No., 1848,) all the facts I could glean, having a tendency to display whatever connection there existed between the sickness of this place and Vera Cruz. In making my memoranda for the present paper, I had the same object constantly in view, and I sincerely hope that the sequel may serve to throw some additional light upon a point which has elicited more discussion and controversy than any other belonging to the whole history of yellow fever. Hitherto, the sole object of my labors in the investigation of our city's *great scourge*, yellow fever, (which may be found in the preceding volumes of this Journal, from its commencement,) has been to observe and portray, with an unprejudiced mind and impartial hand, all the facts and appearances that presented themselves. I have ventured occasionally to express a few inferences and conclusions, which I thought to be legitimate, but I had no right to suppose they would have any influence upon the minds of others. I have ever believed that a *plain and truthful narration of facts*, relative to any subject, is the most important and acceptable service that can be rendered to the honest inquirer after *truth*. Men are prone to differ in opinion upon all doubtful subjects; but when *correct premises are fairly stated*, most persons, capable of reasoning, will arrive at conclusions very nearly alike.

There are but few men whose *mere opinions* are entitled to much consideration; but *facts*, faithfully gathered from the various fields of observation, are justly considered of inestimable value. These form the very *basis* of knowledge; and he who labors to discover them, like the tiller of the ground, performs the first and most important of duties.

The remarks that follow will be found mainly to consist of *memoranda*, taken down at the date of the occurrences: in other words, it is a sort of *diary, or journal of incidents and events as they happened*. I sincerely hope that this novel method of making up a medical essay, will not prove objectionable or disagreeable to the reader.

I am pleased to find that the most of what I had intended to say about the meteorology of the year, has been anticipated by the Annual Report of the Board of Health, which was published in the March No., 1849, of this Journal, to which I would invite the special attention of the reader. Dr. W. P. Hort, the chairman of the committee who drew up this interesting Report, is not exclusively engaged in the practice of medicine, but is rather an *amateur*, as his leisure in public employment permits, and is indefatigable in his researches into the nature and causes of disease. But that his present employment is more agreeable, and his services so valuable to the General Government, we might well desire to have him back again, in the regular practice of physic. As it is, however, we are constantly favored with able essays from his active and well stored mind.

The Report referred to, shows that the city was in a *most miserable hygienic condition*—that the summer was not unusually warm, and that the largest amount of rain fell, perhaps, ever known in one year. The amount of rain that fell during the year, reached the extraordinary measure of *more than ten and a half feet*; the greater part during the

hot months of May, June, July and August. So much rain, and such a filthy state of the streets, in conjunction with the extraordinary number of unacclimated persons in the city, gave rise to the most terrible forebodings; yet it turned out that the summer and autumnal fevers were of an unusually mild character; so much so as to raise doubts in the minds of many, whether the prevailing fever was really *yellow fever*, or only a peculiar form called *dengue*. I shall reserve my remarks upon this question, as also on the *annual mortality*, for the close of my paper.

I have stated that from the time that Vera Cruz fell into our hands, in the spring of 1847, the intercourse between that city and this, was very great. A number of vessels, both steam and sail, were constantly plying, bearing thousands of new soldiers, with the necessary provisions, to the main line of the army, and bringing back the sick, wounded, and discharged. A few cases of yellow fever were to be seen in Vera Cruz, throughout the winter and spring, but none were brought to New Orleans previous to the date of my first memorandum, with which I will now proceed.

MEMORANDUM, *May 7th*, 1849.—Up to this date no cases of yellow fever have been brought to this city from Vera Cruz, notwithstanding the disease has been there, more or less, all the winter and spring. On Sunday, (7th May) the steamship "*New Orleans*" arrived from Vera Cruz, after a passage of four days, having four or five hundred passengers on board, amongst them about 320 sick and discharged soldiers, under the medical care of Dr. H. T. Fourniquet, a very intelligent young physician, who was educated in this city, and had been on duty in the Military Hospital of Vera Cruz for the last twelve months. I sought an interview with Dr. F., who informed me that sporadic cases of yellow fever are to be seen in Vera Cruz, at all seasons of the year, and that *intermittent fever is very common there*. He thinks that more than half the admissions for *fever* in the hospital at Vera Cruz, are intermittents. He says that a large number of *yellow fever* cases commence as *intermittents*, and that a fever common among the natives and citizens, which they call "*calentura*" is an intermittent. He states further, that many of the fever cases out at the camps, three or four miles from the city, commence as intermittents, but soon assume the yellow fever type, and die with *black vomit*. Dr. F. has favored me with the following notes of two cases of yellow fever, or *vomito*, which died on board the "*New Orleans*" during her last voyage.

Case 1.—About two hours after leaving Vera Cruz, (Wednesday evening, May 3d,) Dr. F. was called to see an Irishman, who, he was told, had been sick about a week. This man had been engaged in the Quartermaster's service, about Vera Cruz, for twelve months past, and had been much exposed to the sun. Dr. F. found him extremely low; his skin was yellow, cool, and bathed in clammy sweat; pulse small and weak; tongue covered with a dark fur; his eyes yellow—hemorrhage from the gums and nose; petechiæ over the body.

Treatment.—Dr. F. gave him at once, the following: Sulph. quinine grs. xv, blue mass ℥i. M. He also gave the carb. ammonia, and

applied sinapisms. About 9, p. m., the man began to throw up *black vomit*, and died the next morning.

Case 2.—Soon after the "*New Orleans*" started, Dr. F. was called to see a discharged soldier, a native of South Carolina, who had just came down from the city of Mexico, where he was discharged on account of chronic diarrhœa. He was detained in Vera Cruz about five days before the steamer started. He was very much reduced and debilitated. After embarking, he was attacked with a distinct chill, which lasted one or two hours. This was attended with irritability of the stomach, and pain in the head, back, limbs, &c. When Dr. F. saw him first, reaction was just coming on, and in addition to the above symptoms, he found him with yellowness of the skin and eyes, and retention of urine. In the course of the night, he commenced throwing up *black vomit*, and died about 10½ o'clock, the following morning.

In addition to these cases, I will give the following, which occurred in a passenger on the same vessel. I took the notes from the patient himself.

Case.—John A. Bridgeland, aged 21 years; a native of Lynchburg, Va.—quite robust—bilious temperament. Left Baltimore by sea, for Vera Cruz, on the 22d of March; had a long and difficult voyage and arrived at the latter place on the 24th of April. Says he walked about the town day and night, and was a good deal exposed until he started to New Orleans on the 3d of May. Whilst in Vera Cruz, says he was somewhat indisposed with headache and costiveness; he heard of a good many cases of *vomito* about town, and went into the room of one patient to get a drink of water, but retired as soon as he saw the sick man. He was up pretty late the night before he left Vera Cruz. On the second day out, he was sea-sick, and vomited bile copiously. After this he felt pretty well, until Saturday night, the third day of the passage, when the vessel reached the mouth of the Mississippi river. He then found the weather oppressively hot, and he slept without covering, almost without clothes. The next morning he felt very unwell; was chilly; had pain in the head and back and felt some uneasiness about the stomach. He soon had fever, and reached this city about 5 p. m., then feeling very badly. He put up at the Verandah Hotel, and at night, Dr. R., one of our most respectable practitioners, was called to see him. Dr. R. at once pronounced it a case of *yellow fever*, and prescribed a dose of castor oil, and a mustard foot bath. He took the foot bath and some lemonade, but postponed the oil till the following morning.

May 8th.—At the request of the proprietor of the hotel, the patient was removed, and he went to Dr. Stone's private hospital. He took the oil, however, before going out. After reaching the hospital, the oil purged him freely; and the house surgeon, finding then a considerable abatement of the fever, gave him 10 grs. of the sulph. quinine at once; also some bicarb. sodæ and morph. to allay some uneasiness of the stomach. He soon began to sweat freely, and felt much better. The dose of quinine (10 grs.) was repeated in two hours. I now saw him for the first time and obtained the foregoing history of his case. I found him quiet and

easy, general perspiration, pulse about 80, tongue slightly coated, but moist, a white pellicle upon the gums; he had had a slight hemorrhage from the nose—urine rather scanty. At night he took quinine \mathfrak{D} i at once.

May 9th.—Found patient cool, quiet, easy and sweating. He had rested well. Took a scruple of quinine again early this morning. *Evening.*—Comfortable—took nothing.

May 10th.—Rested well; now easy and sweating; pulse 60; urine free.

May 12th.—Completely convalescent.

No other case of yellow fever was seen at this Hospital until after the lapse of five or six weeks.

MEM. *May 10th.*—A sail vessel arrived from Vera Cruz, having left there one day later than the "*New Orleans*." She had no case of yellow fever.

MEM. *May 23d.*—The weather has been very warm, with occasional rain for several days. The "*Eudora*" arrived from Vera Cruz this morning—no yellow fever on Board.

MEM. *May 24th.*—The Steamship "*McKim*" arrived from Vera Cruz, having 106 sick soldiers on board. Two soldiers died of chronic diarrhœa on the passage; *no case of yellow fever*. Reports this fever getting pretty bad at Vera Cruz.

MEM. *May 26th.*—The Steamship "*New Orleans*" arrived again this morning, and brought amongst her passengers the following decided case of yellow fever.

Case.—Joseph Daniels, of Hancock Co., Miss., aged 21 years, of respectable family and very genteel appearance, went to Vera Cruz in February last, and was there engaged as a clerk in a store, until the 22d of May, when he embarked on the Steamer "*New Orleans*," for New Orleans. As far as we can ascertain, he enjoyed good health during his stay at Vera Cruz, but was somewhat indisposed when he embarked; complained of headache. Soon after leaving, he was seen vomiting, and during the passage, had high fever. The boat made a quick passage, and arrived in New Orleans on Friday morning, May 26th. A brother-in-law of Mr. Daniels, who lives in N. O., was soon apprised of his arrival and illness, and immediately went to see him, on board the vessel. He found him very ill and *delirious*. He left him for the purpose of making arrangements for removing him into the city; but when he returned, Mr. D. had left the boat and could not be found. In a state of delirium he had walked up into the city, and was wandering about from place to place. After a while, he was taken up by a police officer, and it being evident that he was sick and not in his proper mind, he was conveyed to the Charity Hospital, about one o'clock, P. M., almost in a dying state. The house surgeon, Dr. W., at once pronounced him a case of *yellow fever*, from his appearance, and seeing the stain of black vomit on his clothes. This became indisputable on the arrival of his friend and learning whence he came.

I saw him about 6 P. M. and found him as follows: he was lying on his back in a state of insensibility; breathing rapid and laborious; skin slightly yellow and bathed in clammy sweat; eyes injected and yellowish; pulse frequent, soft and weak; occasional convulsions; rigors; constant

motion of the head and extremities. In short he was *moribund*. I saw the stain of black vomit upon his shirt. He died in convulsions about 8 o'clock, P. M.

On the following morning I looked at the corpse—it was yellow and presented all the usual appearances of yellow fever subjects.

An *Autopsy* was not permitted.

This was an unquestionable case of yellow fever, contracted at Vera Cruz. The "*New Orleans*" brought over but few passengers, (say 30 or 40) and I could hear of no other case of yellow fever among them. We learn by her that the yellow fever is increasing greatly in Vera Cruz.

With the view of observing the influence of this case upon the other inmates of the ward, (No. 14,) I made the following notes.

There were 12 patients in the ward.

No 1. Next bed to Daniels, was a young Scotchman who arrived here from Baltimore, on the 11th inst. He had had acute rheumatism for the last 10 days, with considerable fever—never had yellow fever.

No. 2. Next bed opposite side, was an Irishman convalescent from typhus; walking about the house; never had yellow fever.

No. 3. An Irishman, only three weeks from Ireland; went to work *ditching* in the swamp, and in 3 days was attacked with bilious fever. Still has fever, headache, furred tongue &c.; never had yellow fever.

No. 4. Never had yellow fever.

" 5. Never spent a summer here; nor had yellow fever.

" 6. Man been here 14 years; says he never had yellow fever.

" 7. Irishman, here 10 weeks; worked on the levee and contracted bilious fever; not yet convalescent.

No. 8. Man, 3 weeks from Ireland—has bilious fever.

" 9. do. 5 months in N. Orleans, has bilious fever.

" 10. Irishman, been in the hospital several months; had typhus and then went to work as ward nurse—never had yellow fever.

2 patients out in the yard—not seen.

So it seems that Daniels died in a ward where there were 12 patients, but one of whom was known to have had yellow fever.

May 29th.—Went to Charity Hospital and visited ward 14; no patient been discharged since Daniels died; bilious fever cases getting better—no body taken with yellow fever. More new cases of different kinds of fever admitted.

MEM. May 30th.—Steamer "*Edith*" arrived express from Vera Cruz, with the news that the treaty of peace had been confirmed by the Mexican Congress. The "*Edith*" brought no passengers.

MEM. June 4th.—Weather very hot. The "*Virginia*" and "*A. R. Hetzell*" arrived from Vera Cruz. The former brought 30 or 40 passengers—a man died on the passage, supposed yellow fever—no case brought to this city.

MEM. June 7th.—I went to the Charity Hospital this morning, to note the progress of fever. All the fever cases in ward 14 previously noted, recovered and were discharged. *Nothing like yellow fever was contracted by any person in the ward.* The clerk informed me that *intermittents* were evidently beginning to decline, and *remittents* to increase. On looking over the books, and walking through the wards,

I found this to be the case. The house surgeon informed me that he had seen several severe cases of acute jaundice or *gastro-duodinitis*, as is customary in June.

I took the following notes of three cases, showing an approach to yellow fever.

Case. 1st.—James Murray, seaman, native of Scotland, æt. 60, very robust, came from Tampico on the 24th of May. On the 26th was taken sick, but I could not get any account of his symptoms.

June 1st.—Entered hospital, ward 18, then sick five days. The attending physician told me he was yellow when he entered and had but little fever—seemed rather to be in a congestive or torpid state, and was delirious all the time. He died on the 6th June. I saw the corpse on the morning of the 7th. It was yellow all over. I got Mr. Erwin and Mr. Bradbury, two of the house students, to examine his *stomach* and *liver*. They reported to me that the mucous membrane of the stomach was of a dark or slate color, having some blood effused beneath it. There was a little pale mucus in the stomach. The liver was dark colored, and congested. There was bile in the gall bladder. No further examination made.

Case. 2d.—John Hobban, Irish laborer; in the city about 7 months; was brought to the Charity Hospital about 7 o'clock on the 6th June, in a moribund state. He had been found on Villere Street, lying insensible; he appeared to have been vomiting some *dark and bloody matter*, mixed with bits of meat, potatoes &c. He vomited dark matter again after he entered the hospital, which Dr. Barnes and Mr. Marshall thought much like black vomit, from the stain on the bed clothes.

Dr. Barnes thought he might have had hemorrhage from the lungs, and swallowed the blood which he vomited.

He died about 12 o'clock at night. I did not see the body, nor was it examined, as his friends took it away.

This was supposed to be a case of *coup de soleil* or sun stroke. I have heard of several cases of sun-stroke lately, since the weather has been very hot.

Case. 3d.—Michael Loftus, Irishman, æt. 21. Came to this city from Ireland, about the 17th of June, 1847. He was sick with ship fever when he arrived, and remained here in delicate health about a month, unable to do any work. He then went to a plantation, about 100 miles above the city, on the river. He there suffered from intermittent fever throughout the summer and autumn, and returned to New Orleans in the winter, still having chills occasionally.

May 1st.—Went up to Lafayette and got employment in a livery stable, being then pretty stout.

His business there kept him awake, and at work attending to carriages all night, and he slept all day. Whilst thus engaged, he drank freely of ale and porter, but no ardent spirits. His stable was on Tchoupitoulas street, above the Stock Landing.

June 1st.—He was seized with a chill late in the evening, which was soon followed by hot fever, with violent pains in the head, back and limbs; headache, particularly over the eyes.

June 3d.—Fever and pains continued. Took a blue pill, and afterwards a dose of salts; also a dose of oil; these opened his bowels freely.

June 5th.—Came to the Charity Hospital; still had high fever, and headache. The ward student says his eyes were red and his skin slightly yellow. He was ordered a hot mustard foot bath, and cream of tartar drink—these remedies were repeated every day, with now and then an enema of colocynth, until

June 7th.—When I saw him first. He was a patient of Dr. Cross, ward 22. I found him with a yellow skin, particularly about the face and neck; the conjunctiva had been highly injected, and as it was now becoming more pale, gave the eyes a muddy yellow appearance; skin moist, and warm; tongue clean, and moist, but little thirst; pulse 100—some pain in the head, bowels open, stools dark; urine abundant and high colored, &c. Takes the cream of tartar drink.

June. 8th.—Rested well, and says he feels like getting well; not yet entirely clear of fever; yellowness giving way to the blush of returning health.

June 9th.—Clear of fever and convalescent.

This case presented most of the features of yellow fever, and no one would have hesitated to call it so, during an epidemic. It had no sort of connection with any preceding case of yellow fever.

The Steamer "*Water Witch*" has arrived from Vera Cruz; but few passengers; no yellow fever on board—reports it pretty bad there, yet in the published lists of deaths at the General Hospital at Vera Cruz for the previous month, I find but three from yellow fever.

MEMORANDUM, *June 9th.*—Weather very hot and cloudy. Went to the Charity Hospital where I found the following interesting case, a full report of which will be here inserted.

Case.—Jacob Seiback, a native of Germany, aged 46 years; a wagon maker by trade; arrived at this city on the 4th June, on a vessel from Havre. He says he kept well on the whole passage, until he reached the Balize. He there took a bath, and immediately afterwards was seized with a chill, which was followed by a hot fever, which has continued ever since. Says he vomited much bile during the first two days, and had severe pains in his head, back and limbs. The mate of the vessel gave him a purgative of some kind, which operated well. He could not sleep, and had great thirst. Entered the hospital, June 8th, ward 13, [Dr. Brickell.] The house surgeon saw him, the evening he entered, and prescribed some of the usual remedies.

June 9th.—Dr. B. saw him first, and happening to visit the hospital that morning, I saw him also, together with a number of physicians, whose attention had been called to the case, under the suspicion that it was yellow fever. Neither the house surgeon, nor the attending student noticed any yellowness of the skin at their visit last evening.

Present state.—Skin perfectly yellow, warm and moist; conjunctivæ injected and yellow; anxious and rather distressed expression of countenance; pulse 100, rather feeble; tongue coated, brownish and dry; anorexia; nausea—vomited some gruel he had taken; very restless; intellect somewhat confused; slight headache; no other pain. Says

he feels very hot—bowels not open for three days—urinates freely. All who saw the case this morning, thought it *yellow fever*, at least they thought there would be no doubt about such a case, if seen during an epidemic.

Treatment.—Pil. hydrarg. grs. x. Take at once; stimulating enema afternoon; ice *ad lib*.

Evening.—By mistake, took dose of oil instead of the enema—has been purged freely; perspires and says he feels better; has been very restless all day.

Treatment.—Emplast. vesicat. to epigastrium; a solution of sodæ bicarb. and morphia every hour till he sleeps; continue ice.

June 10th.—Patient much worse—so ungovernable during the night that he had to be strapped down; took about one grain of morphia, but without producing sleep; blister drew well. This morning is very restless, tossing about the bed, and at times groaning loudly; skin of a deeper yellow, moist and but little warmer than natural; tongue dry; eyes highly injected; countenance indicative of much distress; thirst; occasional spasmodic twitches of the extremities; slight nausea.

Treat.—Stopped the morphia and soda, as it appeared to do rather more harm than good; ordered ice to the head—cold drinks.

Evening.—No better—purplish spots on the mucous membrane of the mouth, with apparent inclination to hemorrhage.

Treat.—Cathartic enema; continue ice.

June 11th.—No better; slept none; bowels open; more restless and feeble. As the case was looked upon as hopeless, Dr. B. resolved to try the effects of camphor and carb. ammonia; he therefore ordered the following:

R.—Pulv. camphor.
Carb. Ammonia, aa ʒi.
Mucilage, ʒiv. M.

Give a table spoonful every two hours, unless the symptoms should be aggravated; continue ice.

June 12th.—Took the medicine regularly through the day yesterday, and appeared somewhat better in the afternoon; but slept none, and this morning is more feeble; still delirious, but is not confined—bit a piece out of the cup, when water was given to him; also bit the spoon—lies now in rather a passive state.

Treat.—R.—Carb. Ammonia,
Pulv. G. Camphor aa 3 ss,
Black Drop 3 j,
Mucilage Acaciæ ʒiv. M.

A table spoonfull every two hours; sinapisms to extremities; beef tea. Patient died at 3 P. M.

Autopsy.—Three hours after death.—Skin perfectly yellow, with red spots pretty thickly set over the whole body; conjunctivæ yellow; limbs rigid—purplish spots over the mucous membrane of the mouth.

Stomach.—Contained a small quantity of the medicine—mucous membrane slightly engorged.

Duodenum.—perfectly sound.

Liver.—of natural colour—gall bladder filled with dark fluid, more like venous blood than any thing else.

Intestines—healthy—*spleen* normal—*lungs* ditto.

Heart—do.—left ventricle full of dark, thin blood—right ventricle empty—*bladder* entirely empty and contracted.

Head.—Veins of dura mater very much distended—effusion of serum between this and the arachnoid—veins of pia mater turgid, giving a blue appearance to the exterior of the brain, when the dura mater was raised—considerable effusion beneath this membrane, especially at the base of the brain. The ventricles contained no fluid, probably because it had escaped during the removal of the brain.

The substance of the cerebrum and cerebellum appeared perfectly sound.

Now was this a case of yellow fever, or not?

It presented the symptoms witnessed in hundreds of cases of yellow fever, and lacked but the *black vomit* to make the picture complete. It is a fair specimen of the high bilious fever described by James Johnson, as occurring in Bengal and along the African coast. It is like the land fever, that attacks British sailors, if they go ashore and sleep all night on that coast.

MEM. June 10th.—Rained nearly all day. Ship "*Suviah*," with 226, and "*Robert Morris*," with 125 discharged soldiers, arrived this morning. Surgeon Wheaton, U. S. A., came along. He says there was no yellow fever on board. Five men died of chronic diarrhœa on the passage.

MEMORANDUM, June 13.—*Sickness in the Army*—Surgeon Wheaton. This morning I was introduced to Dr. Wheaton, Surgeon U. S. A., who left Vera Cruz on the 1st inst. in charge of ship "*Suviah*" and bark "*Robert Morris*." Dr. Wheaton is from Rhode Island, went out to Mexico with the army of invasion last spring, and witnessed the battles in the valley or basin around the city of Mexico. Dr. Wheaton came down to Jalappa, and established a general hospital there, more than two months ago. He says, the *great disease* of our army, especially the *new regiments*, has been *diarrhœa*. When they remained long in a place, and the sick were crowded, typhus fever appeared. The old regiments of regulars have suffered but little from sickness in Mexico. They take better care of themselves, and are more hardy.

Dr. Wheaton recently came down from Jalappa with some 200 sick and disabled men. He says they did not stay more than an hour in Vera Cruz, came right down to the ships, and embarked. About 125 men were sent over on the *Robert Morris* from the Vera Cruz Hospital. Nearly all of them were cases of chronic diarrhœa. No Surgeon on that vessel. Dr. W. says that four or five men died on the passage, and three or four since entering the Mississippi river. He saw nothing like yellow fever. The Surgeon stationed at Vera Cruz, told Dr. W. there was but little fever there at that time. These vessels, the *Suviah* and *Morris*, are anchored in the river opposite Slaughter House Point, where all the vessels from Vera Cruz are sent. The *American* got here on Sunday night, 11th June. She had carried troops over to Vera Cruz, and hearing of peace, returned without landing them. No sickness on her.

MEM. *June 16.*—Ship “America” and bark “Helen” arrived yesterday from Vera Cruz; left there 7th inst. The America brought 452 sick from general hospital at Jalappa, with Surgeon Craig and Ass’t Surgeon Simpson.

Bark “Helen” brought 65 sick from the general hospital at Vera Cruz, with Dr. McFarland. Both vessels anchored off Slaughter House Point. *No yellow fever.* The sickest patients are sent down to the Barracks, which is devoted to hospital purposes; the other sick are to be sent to the new Marine Hospital on the opposite side of the river from the city.

Two arrivals from Vera Cruz this morning with soldiers under the care of Surgeon Coolidge, who says there was no yellow fever.

MEM. *June 15.*—The “*Mary Ann Jones*” and “*Portland*” arrived from Vera Cruz. Also the “*Russia*.” Dr. Coolidge says there was no yellow fever on board. The Portland brought over about 300 well men of the 13th Regiment. To-day all the sick soldiers are sent to the new Marine Hospital for the first time. Dr. Coolidge informs me this morning, that the sick now arriving have nothing but chronic diarrhœa and the like. He says the soldiers from beyond Vera Cruz pass through the place without any detention. He learns that there is less yellow fever there now, than there was a month ago.

Mem. *June 16th.*—Tremendous rain this morning—city inundated. In regard to the sickness among the returning soldiers, the following communication appeared in the Picayune newspaper of this morning, from Gen. Brooke, in reply to an inquiry from our Mayor:

“*The Return Soldiers.*—The following letter from Gen. Brooke, in reply to one from the mayor of the city, will satisfy our citizens that that distinguished officer has taken every precaution in his power to render the soldiers returning from Mexico as comfortable as may be, whilst they remain here, and also to prevent the introduction of diseases into the corporation. Gen. Brooke, whilst in command of the Western Division of the army, has distinguished himself for promptitude in the discharge of his duties, and humanity in providing for the wants of the sick and wounded:

Head Quarters Western Division, }
New Orleans, June 14, 1848. *}*

SIR:—I have the honor to acknowledge the receipt of your letter of yesterday, and, in compliance with your request, state with pleasure, the arrangements which have been made for the sick and well.

All vessels arriving here from Vera Cruz are anchored off Slaughter House Point. If they contain sick, they are sent off in a steamer to the hospital at the New Orleans Barracks, the Marine Hospital in Algiers, Baton Rouge, and Jefferson Barracks, as may be deemed best by the Surgeon General. It may be well to state that there has not been reported a single case of yellow fever, and that the general condition of the sick is infinitely better than the last year. All the troops for duty will be encamped in the rear of the New Orleans Barracks, on the Bingamin and Eclipse Courses, where every provision has been made for their accommodation. It will be impossible for me to state how long

they may remain in this neighborhood, as it will depend on the proclamation of the President of the United States, directing their being mustered out of the service, which, I suppose, will take place at the earliest moment. I shall be happy, at all times, to unite with yourself in taking any steps necessary to the continuance of the health of the city, and the prevention of disease which may occur from the introduction of the sick or well in New Orleans. I beg leave to state further, that in the event of the United States' hospitals not being able to receive all the sick, it is intended to rent Dr. Luzenberg's hospital. I am, with great respect, your most obedient servant,

GEO. M. BROOKE,
Brig. Gen. U. S. A.

To Hon. A. D. CROSSMAN,
Mayor of the City of N. Orleans, La."

MEM.—June 21st.—Weather very hot and wet. The "*Maria Buri*" arrived from Vera Cruz, having more than 400 passengers—no yellow fever amongst them. A norther blowing at Vera Cruz when the *Maria* left. I learn there was not much yellow fever there, when she left; the report from the general hospital shows but nine deaths from the 1st to the 15th June. The N. Orleans Board of Health in their report of deaths for the week ending June 17th, have *one* from *yellow fever*, but the Secretary, Dr. Hester, accompanies it with the following note at the bottom:—"The certificate of this case was given by a *commissary*, and is not, therefore, entitled to much or any credit." I could get no farther particulars of the case. Surgeon Coolidge is on duty at this place, and kindly furnishes all the necessary information respecting the condition of the troops returning from Mexico.

MEM. June 24th.—A man died with black vomit at the new hospital across the river, under charge of Surgeon Craig, U. S. A. No other case there.

Yesterday I was invited by Dr. Moss to visit a case of yellow fever at Hewlett's Hotel. This was a Mr. R., who had left the city of Mexico about the first day of June; came down to Vera Cruz, where he was detained five days; left V. C. June 14th, on board the British steamer; next day was taken with a chill, followed by high fever, and was treated by a physician on board; arrived at New Orleans on the 20th. Dr. M. was called to see him on the 21st, and found him very ill; "pulse small and frequent; skin cool and of a dusky yellow color, eyes injected, tongue coated, constant thirst, nausea and vomiting acid matters." Dr. M. invited me to see the case on the 23d. I considered it well marked yellow fever and in a critical condition. Hemorrhage now commenced from the gums. To complete the notice of this case, I will here add that the hemorrhage continued six days, but the man finally recovered.

MEM. June 26th.—Dr. F. Downer gave me brief notes of a case strongly resembling yellow fever. A man on Girod street, who had been here since 1st January, was attacked on the 14th June, and died on the 21st. Body turned very yellow; threw up dark green matters just before death.

June 28th.—Board of Health reports two deaths from yellow fever, both occurring at Dr. Luzenberg's hospital.

The Secretary says: "These two cases died at Dr. Luzenberg's hospital, and had just returned from Mexico."

MEM. *June 29th.*—Visited steam ship "*Alabama*" in company of Dr. Hester and Dr. Cantor. She arrived here this morning from Vera Cruz; left there Saturday evening last, 24th. Brought five or six hundred soldiers and officers from the seat of war. I conversed with Surgeon Rutledge, who came passenger. He said the troops came from the interior, and staid but a few hours in Vera Cruz. The troops are generally in good health—saw a few cases of chronic diarrhœa. Dr. Rutledge informed me that there occurred *one plain case of yellow fever* on the passage, in a little boy six years old, the son of the Captain. He had *black vomit* on the 3d day, threw it up in considerable quantities for two days; turned yellow—has not vomited to day, and is getting better. He had been taken off the boat, and I did not see him: Dr. R. said there *was nothing else like yellow fever on board*.

The Georgia Regiment was getting off the boat at the Government wharf, and going direct to Mobile. The Pennsylvanians and New Jersey men were taken up to Carrollton to land.

MEM.—Dr. Hester and I went on board the British ship "*City of Lincoln*," lying near the Government wharf, from which a case of yellow fever had been sent to the Charity Hospital this morning (29th June.) The mate told us the vessel had been in port ever since the 5th inst. last from Liverpool. Within a week or so past there have been about six cases of fever—four of them were not severe, and soon recovered. One man died last night, without, (as I was afterwards told by Dr. Jos. E. Ker,) black vomit, but turned almost black after death, according to the mate. Another was taken to the Charity Hospital this morning, and is a plainly marked case of yellow fever.

The crew of this vessel has had nothing to do with the Vera Cruz vessels, though near their landing; and the ship "*America*," which arrived on the 14th, moored next outside of her, and lay a short time. She then anchored off the point.

UNDOUBTED CASE OF YELLOW FEVER AT THE CHARITY HOSPITAL, AFTER
NEARLY A MONTH'S RESIDENCE IN THE CITY.

June, 29th 1848.—Joseph Dilart, native of Antwerp, seaman, aged twenty-three, last from Liverpool, on the British ship "*City of Lincoln*," arrived here on Monday, June 5th—vessel lies near the Lower Cotton Press in the 3d Municipality. Seven days since, J. D. says he was taken with a chill, soon followed by hot fever, violent pains in the head, back and limbs. Says he took no medicine, though Dr. J. E. K. visited other sick men on board of same vessel. On Tuesday night (5th day) hemorrhage commenced from the mouth. On the sixth day, (Wednesday) he says he had a violent purging for a short time. On this (Thursday) morning, he was brought to the Charity Hospital, (pay ward 12) Dr. R. I happened to call there soon afterwards, and found him in the following condition: Skin and eyes slightly yellow; skin of natural temperature and dry; pulse about eighty, full and soft—urine scant, and he says high colored;

thirst; pretty free hemorrhage from the gums; no nausea—considerable tenderness over the abdomen; somewhat restless. Dr. W. and Dr. C. and others, who saw the case, had no doubt as to its being yellow fever. Dr. R., the attending physician, had some doubts.

Treatment.—Full warm bath—lemonade iced. R.—Aqua. menth. pip. $\frac{3}{4}$ iii, strychnine gr. 1-4, simp. syrup $\frac{3}{4}$ i. M. Give a table spoonful every two hours.

June 30th.—Found patient much worse—lies with his eyes closed, does not speak; tosses himself occasionally. Nurse says he was very restless throughout the night; up very often with purging of blood; no vomiting—took all the medicine. This morning his skin is more yellow, rather livid about the face and neck; eyes more yellow, but not injected—pulse 120, small and weak—passed urine this morning; blood coagulated about the mouth.

Treat.—Continue the strychnine as yesterday, adding syrup tolu. Rub body with dry mustard—sinapisms to extremities. Died at 5½ P. M.

Autopsy.—July 1st 9½ A. M. Body not much emaciated—not very rigid—skin not very yellow, rather livid about neck and face. Face swollen; blood oozing freely from mouth and nostrils.

Chest.—Lungs dark and engorged with blood; pleuritic adhesion on right side,

Heart.—Flabby and empty—no coagula—lining memb. dark red.

Abdomen.—Peritoneal sac contained bloody serum. Gas under peritoneal memb. in the illiac fossac.

Liver.—Very flabby—surface of right lobe of mottled brown color; under-surface green; left lobe natural color. Substance of liver very dry, and crepitant, like lung—no bile in the *pori bilinarie*.

Spleen.—Somewhat enlarged, and crepitant on pressure.

Stomach.—Dark externally—contained fætid gas, and a little dark bloody mucus; in fact *black vomit*; mucous membrane in large curvature elevated with gas—emphysematous, livid; little blood in duodenum; muddy fluid in other intestines. No organic lesion.

Spinal Marrow.—Between shoulders, blood effused and coagulated; marrow pale. I did not see the brain.

MEM.—Another case of yellow fever at Charity Hospital, June 29th.

On the same morning, Dr. Cross and myself went out to the dead house, and witnessed an autopsy of the following case:

Case.—R. Remis, Spaniard, aged 34; ship carpenter, from Barcelona; in city two months; brought to hospital by his friends, who said he had had fever six days. Entered June 28th, then very yellow, and had slight hemorrhage from mouth. Considered *in articulo mortis*. Died at 2½ P. M.

Autopsy, June 29th—Body generally yellow; dark green about the neck; fætid blood oozing from the nose.

Stomach.—Contained reddish fluid; mucous membrane livid.

Liver.—Entire surface of mustard color; underneath, of bronze color—gall bladder full; stain of bile on surrounding parts; bladder full of red urine. No further examination.

MEM. *July 1st.*—Dr. H. informed me that a man died last night on Dryade street, above Triton Walk, he thinks with yellow fever. He was a drayman, working all about the city. He died on the 8th day of sickness. Dr. H. only saw him the day previous to death, and the morning after death. The body was of a livid yellow; blood oozed from the mouth. No autopsy made.

July 2d.—Weather hot—frequent rains. Went up to Carrollton, and visited the soldiers encamped on the race track there. The *stage*, or *stand*, an elevated, open shed, erected for the comfort of visitors to the races, is now converted into a temporary hospital. I saw a number of invalids at this place, chiefly chronic bowel complaints—nothing like yellow fever. The track is covered with tents, exposed to the sun. From the late rains, the ground is very wet all around. There are between one and two thousand men encamped at this place. They have recently returned from Mexico, and have to be detained until they can be paid off and discharged. The most of them are kept here one or two weeks.

CASE OF BLACK VOMIT ORIGINATING IN THIS CITY.

July 6th.—John Kyle, native of Pennsylvania, came last from Kentucky, three months ago. An athletic man, aged 31. Has been at work in a sugar refinery, near the saw-mill on the river, at the lowest part of the Third Municipality. Says he was in the habit of coming up into the city occasionally. Not in the habit of visiting ships, or having any thing to do with them. Says he was attacked with chill on the third or fourth of July, soon followed by high fever, pains in the head, back and limbs.

Entered Charity Hospital July 6th, ward 13; Dr. Brickell. Visited by me during the absence of Dr. B. Saw him first on the 7th September. Considerable fever—pulse upwards of 100, full and strong—severe pain in head, back and limbs—nausea and vomiting—eyes injected—skin hot, and beginning to turn yellow—thirst, &c.

Treatment.—Cups to mastoids and epigast.—purg. enema—poultice to epigast.—hot must. foot bath—lemonade.

July 8th and 9th.—Patient continued very ill. The house surgeon saw him, and said he thought it yellow fever. He was cupped again—had repeated foot baths, stimulating frictions, poultices, laxatives, ice, &c. Was very restless, constantly getting out of bed. Slight delirium at night—continued irritability of stomach—vomited no bile—disposition to hiccup.

July 10th.—Found patient extremely ill; quite yellow; skin moist, and of natural temperature; bowels open; urine scant; no pain—vomiting redish sanguinolent fluid, in small quantities; still restless. Ordered solution bicarb sod. and morphia—sinapised poultice to epigast., stimulating frictions to surface, lumps of ice, &c.

Evening.—Patient almost hopeless—constantly vomiting redish fluid—hiccup—no urine—desires to get out of bed, &c.

July 11th.—Died this morning about 5 o'clock.

Autopsy.—Five hours after death. Present, Drs. Wederstrandt, Axson, Wynn, Tucker, Nott, and Moss.

External Appearance.—Body very yellow, and not emaciated.

Chest.—Lungs loaded with blood—extensive pluritic adhesions.

Abdomen.—Stomach contained 10 or 12 oz. dark red fluid, with a thick black sediment; mucous membrane of a dark red color, and highly engorged.

Intestines.—Of a dark, livid color in some places—contained a thick, redish fluid; mucous membrane highly engorged.

Liver.—Of pale yellow color, externally—large and highly engorged with blood, which flowed out freely when cut. No bile visible in the small ducts.

Gall Bladder.—Small, and contained less than an ounce of thick, redish bile; lining membrane highly engorged, and of a dark red color. Well marked *echymosis* around the gall bladder.

Spleen.—Remarkably small and firm.

Urinary Bladder.—Contracted and nearly empty.

Kidneys.—Normal.

Brain.—Not examined.

Remarks.—No person who saw this case, had any doubt about its being yellow fever.

The first case of black vomit last year, occurred and died on the 7th July.

July 7th.—Saw a case of fever at Charity Hospital—became quite yellow on the seventh day; been in the city since last fall.

Conversed with Dr. Halsey, Surgeon U. S. A., who arrived to-day on the "*Palmetto*." He said a man died of yellow fever on the passage; (Lieut. Barry, of Kentucky;) a cabin passenger, in the midst of about fifty others. There were about 400 soldiers on this vessel. Dr. Halsey says he heard of but little yellow fever in Vera Cruz.

July 9th.—Dr. McCormick has a case of yellow fever at the St. Charles Exchange, in Major Smith, of the Commissary Department. Major S. came over on the steamer "*Palmetto*," which left Vera Cruz on the 3d July, with 400 men of the 15th infantry, besides 45 cabin passengers, and arrived here on Saturday evening, July 1st. Maj. S. was sick on the way; 6th July, Dr. McC. says he was a *plain case*. Died on Tuesday morning, July the 9th. Dr. Halsey attended this case with Dr. McC., and told me he threw up a little *black vomit*.

July 10th.—At Stone's Hospital to-day, I saw six Mexicans belonging to Col. Dominguez's Spy Company. Four of them had yellow fever. Two of them in a hopeless condition; one dying with black vomit and hemorrhage from mouth. These men came over on the steamer *McKim*, and arrived yesterday morning. Some half-dozen others died on the passage, with *vomito*. I learn that Col. Dominguez and his men stayed about 20 days in Vera Cruz. They were all from the interior of the country, and never had yellow fever previously. There were no cases of yellow fever amongst our troops, on the passage.

July 11th.—Visited Stone's Hospital. Two of the Mexicans above mentioned, were dead this morning; another in a hopeless condition; another looks like recovering.

CASE OF YELLOW FEVER AT CHARITY HOSPITAL.

MEM. *July 13th.*—A man died at the Charity Hospital this morning, with black vomit—an unquestionable case of yellow fever, originating in this city. The following is taken from the books.

Andrew Johnston, a native of Denmark, aged 22 years, steam boat hand—resided in New Orleans for two months past—was admitted into the Charity Hospital, *July 10th*, extremely sick; said he had been sick eight days. He was in ward 18, (Dr. Wederstrandt.) Dr. W. showed him to me on the morning of the 11th. As he could not speak English, I did not ascertain in what part of the city he lived. His condition was almost hopeless—he got worse till the 13th, when he threw up *black vomit*, and died soon afterwards. He was very yellow—no autopsy was made, as there was no mistaking the case.

July 16.—I went with Dr. B. H. Moss, down to the U. S. Barracks—saw Drs. Craig, Hitchcock and Sloan. Learned there were about 350 sick in hospital; most of them with *chronic diarrhœa*—no yellow fever amongst them. There has as yet been no death from yellow fever at this place, notwithstanding the many sick that have recently arrived from Vera Cruz. They are building an extensive new hospital at the Barracks, capable of containing at least 600 invalids. We visited the sick, and found every thing very neat and comfortable.

A great many troops are now arriving from Vera Cruz, and some from Tampico—yet they bring but very few cases of yellow fever.

A VERA CRUZ CASE.

July 17th.—*Black Vomit at Charity Hospital.*—Michael McGarvey, Irishman, aged 33, come from Vera Cruz, Sunday morning, *July, 16th*—entered Hospital, ward, 20, same day—then sick six days—threw up black vomit at night—became *very* yellow—died next day at 4, P. M.

CASE ORIGINATING HERE.

On the same day as above, and same ward, C. W. Crittenden, aged 24—native of New Hampshire, a pilot on one of the tow boats plying between New Orleans and the Balize—came here in January last—had never spent a summer in the South—was taken sick at the Balize, on the 14th *July*, with headache, pains in back and limbs, accompanied by high fever—came up to the city on the 15th, and went to a boarding house near the lower market—took no medicine. Entered Hospital, *July, 16th*—then had high fever. Dr. W., the house surgeon, ordered v. s., mustard pedeluv, cathartic enema, and quinine in small doses—felt faint after the loss of little blood—had hemorrhage from the nose—hemorrhage again the next day.

July 21st.—Found him cool and clear of fever—rested pretty well last night—pulse 72; bowels open—urine free—gentle perspiration—hemorrhage from nose again this morning.

July 23d.—Cured. This would not be called an unquestionable case of yellow fever, though I have no doubt, it would have been plain enough if it had terminated fatally.

MEM. *July 18th.*—Found seven other cases of yellow fever at the Charity Hospital, four of which originated about New Orleans, and three came from Vera Cruz.

Original case 1.—John Gordon, native of New York—seaman, aged 21—came to New Orleans, *July 3d*, on the Ship "Oregon," which anchored off Slaughter House Point. Gordon remained on board all the time. He was attacked with fever, *July 11th*; took a dose of castor oil. Entered Hospital, ward 22, (Dr. Cross,) *July 13th*. He was bled, cupped, and took gentle purgatives, &c.

July 17th.—Commenced throwing up genuine *black vomit*; continued to throw black vomit till 4, P. M., *July 20th*, when he died. No autopsy—*undoubted case*.

Original case 2.—(Ward 14) Irish drayman, now convalescent—quite yellow. Had been about New Orleans the last three years, but never spent a summer here, nor had yellow fever.

Original case 3.—(Ward 15) J. H. Punkhaus, a Prussian, been here five years—lives in Third Municipality; has had intermittent fever, but never had yellow fever—now quite yellow. This man afterwards became delirious, and had to be tied down; had hiccup---did not throw up black vomit---died, *July 22d*.

Original case 4.---(Ward 18) Tow-boat hand; been here four years; never had yellow fever. *July 25th.*—*Not a plain case*—recovered.

Vera Cruz cases.---one very ill---two recovering.

MEM. *July 22d.*—I find in the *Picayune* newspaper of this morning, the following article which shows the number of troops which have recently come from Vera Cruz to New Orleans:

"*Transportation of Troops from Vera Cruz.* We are indebted to the courtesy of Captain Maston, Acting Quartermaster at Vera Cruz, for furnishing us, through a correspondent, with the following statement:

"*Statement of the embarkation of U. S. Troops, Quartermasters' men, &c., from the port of Vera Cruz to the United States, from the 3d to the 14th of July, 1848, inclusive:*

July 3.—Per ship Lapland, for New Orleans, 12th and 15th Infantry,....	400
" 5.—Per steamer Galveston, New Orleans, 70 horses, one company 3d Dragoons,.....	180
" 6.—Per ship Niside Stuard, 12th Infantry,.....	400
" " " America, 14th Infantry,.....	370
" " " Tyrone, Rifle Regiment,.....	400
" " " brig Sophia, Rifle Regiment,.....	100
" " " Helen, Rifle Regiment,.....	150
" 7.—Per steamer Jas. L. Day, 12th Infantry,.....	300
" " " brig Mount vernon, Rifle Regiment, 60, and 80 discharged men,	140
" " " bark Touro, discharged men.....	200
" " " Lionosa, discharged men,.....	150
" " " ship Robt. Parker, 2d Infantry,.....	500
" " " Suffolk, 7th Infantry,.....	440
" 8.—Per ship Masconomo, 3d Infantry,.....	600
" " " Isaac Newton, 1st Infantry,	400
" " " brig Milaudon, 7th Infantry.....	200
" " " schr. Creole, 1st and 7th Infantry,.....	150

July 11.—Per brig Perfect, 9th Infantry,.....	150
“ “ “ “ Censor, 9th Infantry,.....	100
“ “ “ steamer Mary Kingsland, Taylor's Battery, and one company 9th Infantry,.....	160
“ “ “ steamer Hetzel, Voltigeur Regiment,.....	200
“ “ “ bark Paoli, Voltigeur Regiment,.....	260
“ “ “ steamer Massachusetts, 9th Infantry, 300, and 54 discharged men,.....	354
“ 12.—Per steamer Virginia, Voltigeurs,.....	300
“ “ “ bark Mopang, 4th Artillery,.....	160
“ “ “ brig Mary Jones, 4th Artillery,.....	140
“ 15.—Per ship Nonantum, 4th Artillery, 280, Pioneers 30, discharged men, 90,.....	409
“ “ “ ship Brunswick, for New York, 2d Artillery,.....	300
“ “ “ Rob Roy, for New York, 2d Artillery,.....	250
“ “ “ steamer Portland, French's Battery and 80 horses,.....	80

Total, 7,944

Total number of troops embarked since May 30,..... 26,500

MEM. *July 24th.*—Found several cases of yellow fever from Vera Cruz, and two cases of fever from Tampico, *not* well marked.

Ward 22.—Patrick Flanigan, Irish labourer—been in New Orleans seven months. Entered hospital, July 23d; then sick four days.

July 24th.—I found him lying in comatose state; slightly yellow; sordes about the teeth—would not speak—threw up black vomit, and died in the evening.

SEVERE CASE OF BILIOUS FEVER FROM UP THE RIVER.

B. Gillan, aged 21, deck hand on board steam boat “*Alexander*,” which arrived here from Cincinnati on Tuesday, the 18th instant. B. G. says he was taken sick two days before arriving in New Orleans, with pains in legs, back, head, &c., with high fever—took a dose of castor oil, the only medicine he did take before entering the hospital. After reaching New Orleans, he says he went to a boarding house near St. Mary's market—says he vomitted a great deal during the first days of his illness, but that he only threw up what he drank; no bile. Entered the Charity Hospital, ward 15, July 23d. I saw him first this morning, July 24th.

Present state.—Very yellow all over; constant nausea; tongue furred and moist; pulse 96, soft and weak; cannot sleep; bowels freely purged yesterday; urine pretty free and very red.

Treatment.—Dr. McGibbon was giving him the ferrocyanate of quinine freely; sinapism to epigastrium, iced lemonade, &c.

July 25th.—I found him very low; mind perfectly clear; said “he was nearly gone;” had slept none; still has nausea; pulse 88, small and feeble; tongue pretty clean, and dry; bowels open, urine free; no pain; lies quiet.

August 1st.—This man got extremely low, but never showed a tendency to hemorrhage. In fact he did not have yellow fever, as was at first suspected. He was only a case of severe bilious fever, such as I have seen in the country, with yellowness of the skin. Dr. McG., at first diagnosed the case yellow fever, but afterwards admitted his mistake. The man recovered from his low state, and this day is completely

convalescent. The yellowness has faded away and disappeared, and he has now nothing but debility to retain him in the hospital.

MEM. *August 1st.*—Up to this date I have endeavored to give some account of all the earliest cases of yellow fever, about which I could learn any thing, and also as many facts as I could ascertain, relative to the number and condition of the troops returning from Mexico. Let us here pause for a moment, and examine the facts presented. Nearly *thirty thousand* men have come over from Vera Cruz to New Orleans, since the 30th of May; and a small number (unknown) from Tampico and the Rio Grande, at which latter place there has been no yellow fever. Amongst all the troops that have come over, we will suppose there have occurred *fifty cases of yellow fever*; though I think this a very liberal allowance. There may have occurred on the passage, and at the different hospitals and hotels of this city, as many as twenty deaths from yellow fever amongst these troops; though I have not been able to ascertain more than *ten or twelve*.

On examining the records of the Board of Health, I find there were *twenty-five deaths from yellow fever* in July. Only about *one half* of these occurred at the Charity Hospital, as will appear from the following tables, compiled from the books:

TABLE, showing the Cases of Yellow Fever admitted into the Charity Hospital, up to August 1st, 1848,---the places from which they came last, and the length of time in New Orleans, immediately before admission into the Hospital.

Case	Date	Name	Last from	In New Orleans	Duration
1.	May 28,	J. A. D.	Vera Cruz.	6 hours.	
2.	June 8,	J. S.	Havre.	4 days.	
3.	" 29,	J. D.	Liverpool.	4 weeks.	
4.	July 6,	J. D. J.	Tampico.	5 days.	
5.	" "	J. K.	Kentuky.	7 months.	
6.	" 10,	A. J.	Baltimore.	2 months.	
7.	" 11,	G. S.	Apalachicola, Fa.	2 days.	
8.	" 13,	J. S.	Cincinnati.	2 years.	
9.	" "	W. M.	Liverpool.	3 months.	
10.	" "	J. G.	New York.	10 days.	
11.	" 14,	B. G.	Vera Cruz.	6 days.	
12.	" 16,	C. C.	New York.	6 months.	
13.	" "	M. McG.	Vera Cruz.	12 hours.	
14.	" 17,	J. P.	Galveston.	5 years.	
15.	" 23,	P. F.	Ireland.	7 months.	
16.	" "	M. S. M.	Vera Cruz.	1 week.	
17.	" 24,	J. S.	New York.	1 year.	
18.	" "	B. L. (a Mexican,)	Vera Cruz.	4 days.	
19.	" 25,	P. McA.	Liverpool.	5 weeks.	
20.	" "	J. W.	Mobile.	2 hours.	
21.	" "	N. S.	Liverpool.	2 days.	
22.	" 26,	J. C. (a Spaniard,)	Barcelona.	3 months.	
23.	" "	J. M.	Vera Cruz.		
24.	" 28,	R. S.	Vera Cruz.	1 week.	
25.	" "	J. S.	Rotterdam.	2 years.	
26.	" 29,	R. S.	Vera Cruz.	2 weeks.	
27.	" "	J. A.	Trieste.	2 months.	
28.	" "	T. G. B.	New York.	4 months.	
29.	" 30,	F. M.	Louisville.	9 months.	
30.	" "	T. W.	New York.	12 months.	

Case 31, July 30,	P. O'B.	Last from Liverpool.	In New Orleans	8 months.
" 32, " 31,	J. F. B.	" " Saint Louis,	" " "	8 days.
" 33, " "	N. B.	" " Havana,	" " "	7 years.
" 34, " "	S. B.	" " Genoa,	" " "	1 year.

From this table it will be seen, that of the *first thirty-four cases* of yellow fever admitted into the Charity Hospital this year, *only eight* had recently come from Vera Cruz, and one from Tampico.

LIST OF DEATHS FROM YELLOW FEVER AT THE CHARITY HOSPITAL,
UP TO AUGUST 1ST, 1848.

1st death on the 14th June.	Man last from Havre.	In this city	3 days.
2d " " " 29th "	" " " Liverp.	" " "	4 weeks.
3d " " " 11th July.	" " " Kentucky.	" " "	7 mos.
4th " " " 13th "	" " " Baltimore.	" " "	2 mos.
5th " " " 17th "	" " " Vera Cruz.	" " "	$\frac{1}{2}$ day.
6th " " " 20th "	" " " New York.	" " "	10 days.
7th " " " 22d "	" " " Galveston.	" " "	5 years.
8th " " " 24th "	" " " Vera Cruz.	" " "	6 days.
9th " " " 24th "	" " " Ireland.	" " "	7 mos.
10th " " " 26th "	" " " Vera Cruz.	" " "	4 days.
11th " " " 27th "	" " " Liverpool.	" " "	5 weeks
13th " " " 31st "	" " " Liverpool.	" " "	8 mos.

It will thus be seen that of the 13 first deaths from yellow fever at the hospital, *ten originated here*, and *three came from Vera Cruz*.

There were three deaths by yellow fever on the 1st day of August; five or six cases in the hospital.

Yellow fever begins to appear in the city in private practice, and may now be considered as having fairly started. The Board of Health reports sixteen deaths from yellow fever, last week.

DEATH OF A CREOLE WITH BLACK VOMIT.

MEM. *August 8th*.—I saw Dr. Picton to day, who told me he had been called last night in consultation with Dr. Davezac to see a daughter of Mr. J. A. Noble, aged six years, and found her throwing up *black vomit*. Dr. D. had been attending her five or six days, for what he supposed was an intermittent fever—he did not suspect yellow fever till last evening. She died in the course of the night. This little girl was a native of New Orleans, but had been absent the last two years, in Ohio.

MEM. *August 9th*.—The Board of Health reported twelve deaths from yellow fever for the last week.

Surgeon P. Craig died yesterday, at the U. S. Barracks, and was buried in the city this morning.

August 10th.—Went up to Charity Hospital to-day. Yellow fever has increased rapidly within a few days past. There are now about twenty cases in the hospital; several with black vomit. I hear of cases in private practice.

Assistant Surgeon Newton, U. S. A., died at the Barracks last night, with *black vomit*. He returned from Mexico about a month since, and was stationed at the N. O. Barracks. He was up in this city during two or three days just before he was taken sick. Dr. McCormic informed

me that he saw Dr. N. on Sunday last, the 6th, and thought then he had yellow fever, but it was not generally believed he had.

August 12.—Counted thirty-six cases yellow fever at the Charity Hospital to-day. It still rains every day; the *unpaved* part of the city is a *quagmire*, and the *paved*, a mud puddle.

After three day's intermission of rain, on the 4th, 5th, and 6th, yellow fever increased rapidly at the Hospital. There is but little at the other hospitals, or in private practice.

August 19.—The Board of Health reports thirty-eight deaths from yellow fever, for the week ending to-day.

August 28.—Yellow fever has greatly increased since last note, but not called *epidemic* yet. The number of deaths last week, at Charity Hospital, to yesterday morning, was 39. The Board of Health reports 97 deaths of yellow fever for the week ending 27th. Still not much in private practice. Some physicians have six or eight cases. Weather hot and very wet. The papers mention that one case of yellow fever has occurred at Mobile.

MEM. September 1.—There is much talk about yellow fever. The number of deaths last week was 96. Yesterday the Board of Health held a special session, and declare in the papers this morning that the disease is *not epidemic*. People ask, what number of deaths would constitute an epidemic?

There is also much talk about what constitutes *yellow fever*, as distinguished from *remittent bilious* fever. There is certainly a good deal of fever all over this city and Lafayette. The cases are not strongly marked, in the early stages, but if they get bad, and especially if they *die*, the marks of *yellow fever* become plain enough. The deaths from yellow fever are published every day, in the newspapers.

September 5.—The Board of Health reports 106 deaths from yellow fever, for the last week.

Sept. 13.—The most of the cases of fever I have seen since last mem. have been mild, yielding readily to large doses of quinine, (20 to 30 grs.) There is much talk of the prevailing fever about the city; some calling it *dengue*, others *breakbone fever*. I hear of cases of typhoid fever. The bills of mortality report hardly any other deaths from fever, besides *yellow fever*. On yesterday, (12th,) there were 29 deaths from yellow fever, and but *one* from any other fever. Since last mem. I see there have been six cases of yellow fever at the New York quarantine ground.

I hear of many cases that were sick last year, and have seen some myself.

MEM. September 16.—We had an extraordinary *dry storm* last night; no rain; wind blew terribly; weather cooler to-day; sickness diminishing. The following extract is taken from the *Delta* newspaper of this morning:

"*The Health of the City*.—Whilst we are not prepared to assent to, or dissent from, the opinion of the Board of Health, relative to the epidemical character of the fever which has prevailed to some extent in our city, because we do not know what they mean by an epidemic—what are the signs and requisites of such a type of disease—yet it must

be confessed that the yellow fever has certainly manifested no little virulence and fatality during the last week. Compared with the terrible epidemic of last year, the number of deaths is small, but then it should be remembered that the fever attained, last year, the very climax of severity and mortality, whilst in previous years it has been declared epidemical, when much less severe than it is at present. Whether contagious, epidemical, or not, it is certainly true that many persons are confined with the fever, and not a few have died of it. Unacclimated persons, therefore, would do well to keep away until the final departure of the disease is announced.

"On referring to our files of last year, we find that for the 24 hours ending on Sept. 14th, the number of interments of persons dying of yellow fever was *thirty-five*. On the same day, and for the same time, this year, the number is *ten*. But then, it must be remembered, that our present population is considerably less than it was at the same period in 1847. About this time last year the fever began to abate, and from the indications, it seems to be declining now. The deaths yesterday were 10; on Thursday there were 14, on Wednesday 29, Tuesday 20; showing a regular decrease, which we hope will continue until the pestilence shall entirely depart from our city.

"The weather yesterday was extremely warm and sultry. We think it must have been the hottest day of the season."

MEM. Sept. 18.—The Board of Health reports nine deaths from yellow fever yesterday; also the following resolution in the morning papers:

"At a meeting of the Board of Health, held September 9th, 1848, the following resolution was unanimously adopted:

"*Resolved*, That the Board of Health have to report that the general health of the city, and so far as particularly relates to the prevalence of yellow fever at this time, is not of an alarming character; that the fever still continues to attack, in many instances, unacclimated persons, which attacks, however, are generally light and exceedingly manageable; that since the late meeting of the Board, the reports show no increase in the number of cases, nor in their fatality, but on the contrary, an evident decrease, both in hospital and private practice; and the Board adhere to the opinion published by them last week, that there is nothing indicating a pestilence among us, or the probability of one. Persons, however, who would avoid *entirely* the present acclimating fever, are admonished not to expose themselves carelessly to the causes that excite fevers, and those out of the city in *dread* of the disease, it would be as well to remain yet awhile beyond its influence.

P. W. FARRAR,

President pro tem. Board of Health.

A. HESTER, *Secretary.*"

September 22d.—This is the *equinox*, but we have no storm; sickness decreasing.

October 2d.—The sickness has almost disappeared; but few new cases occurring, and those very mild. The weather has become quite cool and dry. Yesterday, fire and winter clothing were very comfortable. The fever that has prevailed has lately been called *dengue* chiefly; and the most of cases have certainly been very mild and man-

ageable, but whenever death occurred, "*Yellow Jack*" showed his face plainly. The mortuary reports show but few deaths from any other form of fever, besides *yellow fever*.

Sickness has been declining since the 23d September. The Board of Health now cease publishing daily reports. Annexed are extracts from the *Delta* of October 1st, showing the decline of sickness; also that yellow fever is at Vicksburg, and Houston, Texas:

"*Health of the City*.—The weekly reports of the Charity and Marine Hospitals, which we publish to-day, furnish gratifying evidence of the rapidly improving health of the city. Yellow fever, it may now be said, is numbered with the things that were. Henceforth, the daily reports in the Charity Hospital will be discontinued—their further publication is deemed unnecessary. A weekly report, only, will be issued."

Yellow Fever in Vicksburg.—The report of the Sexton of the city of Vicksburg, for the week ending Saturday, the 23d ult., published in the *Sentinel*, shows that eight deaths had occurred in the city, four of which are reported of yellow fever. Since that time, adds the *Sentinel* of the 26th, there have been three other deaths, with similar symptoms. We hope (continues the editor) to be able to announce in our next issue, that the sickness is entirely abated, and the excitement at an end."

"*Yellow Fever at Houston Texas*.—It appears from the Texas papers, that the yellow fever exists in Houston to a considerable extent. The *Galveston News* of the 21st ult., says:

"The sickness in Houston, (according to information brought by passengers arrived this morning,) has greatly increased within a few days past. We learn, verbally, that the number now supposed to be sick in that city, is about 300; and this statement is confirmed by a letter just received. It is said to be the unanimous opinion of the physicians of that place, that the disease is yellow fever, though in quite a mild type. The cases that prove fatal, are nearly all among unacclimated persons. The usual alarm created by an epidemic is said to have extended far into the interior, and cut off nearly all communication with the country. The consequence is, that the receipts of the present crop in Houston, and, of course, also, in a great measure in this city, will be greatly delayed; and our merchants, as well as planters and others, must experience some disappointment."

MEM. *October 3d*.—Went through the wards of the Charity Hospital to day; found some 20 or 30 lingering cases of yellow fever in the different wards; most of them were very yellow, and partaking more or less of the typhus character. Saw a few recent cases which evidently displayed the same character. We found four corpses from yellow fever in the dead house.

There were 253 deaths from all diseases at the Charity Hospital, in the month of September; of which 216 died of *fevers*, and of these latter, 209 died of *yellow fever*.

The following is from the *Delta*:

"At a meeting of the Board of Health, held October the 2d, 1849, it was unanimously resolved, to publish the following:

"The Board of Health takes great pleasure in announcing to their fellow citizens who are absent, and to persons who contemplate visiting the city

of New Orleans, that from this date no fear of yellow fever need be apprehended, by the unacclimated for this season.

A. D. CROSSMAN,
President of Board of Health.

A. HESTER, *Secretary.*

October 12th.—I have had three more cases of yellow fever, since the last memorandum. Mr. Knight commenced with *bilious vomiting*, and went down to the verge of black vomit; afterwards turned yellow, and had slight hemorrhage from sores on the nose and lip; he had retention of urine and afterwards hemorrhage from the penis, 7 or 8 days.

The Board of health reports 26 deaths, from yellow fever last week.

MEM. *October 27th.*—Board of Health reports 16 deaths from yellow fever for last week.

The weather has been very warm since last memorandum. Every body is dressed in summer clothing, and sticking to the shady sides of the streets.

On the 24th and 25th we had considerable rain; otherwise it has been very dry and dusty. Mosquitoes are now as bad as they have been any time this year. There are some severe cases of yellow fever at the Charity Hospital yet. The fatal cases are terminating in black vomit, and hemorrhage from the mouth, and other parts. Dr. Cross had a remarkable case with hemorrhage from the mouth; and Dr. Brickell several with black vomit; one also had hemorrhage from the ears.

I hear of but few cases of yellow fever in private practice at this time.

MEM. *November 1st.*—Yesterday the weather became very cool; fires quite comfortable. The Board of Health reports 24 deaths from yellow fever for the last week. The late warm weather evidently increased the disease at the hospital. Very little seen in private practice.

There were 90 deaths from *fever* at the Charity Hospital last month, of which 70 were from *yellow fever*, 11 from typhus, 5 from typhoid, 3 from remittent, and 1 from congestive fever.

There were 461 discharges from *fever*; of which 300 were of inter-mittent, 77 of yellow fever, 74 of bilious remittent, 10 of typhus and typhoid fever.

November 8th.—We have had several very cool days, since the rain on the 27th ult. I saw frost on the morning of the sixth. Mr. Penn, our Postmaster, came over from Mandeville that morning, and told me there was a white frost on the ground across the lake that morning.

Board of Health reports fourteen deaths from yellow fever last week.

November 10th.—Saw a man dead of yellow fever, on the corner of Rampart and Canal streets, a patient of Dr. D. I was told he had thrown up black vomit freely for several days. The man, Mr. Barteau, was a clerk on a steam boat, and had lived in the South some nine or ten years, in and out of New Orleans frequently during the time, but never spent a summer here.

November 13th.—Have just had a plain case of yellow fever in private practice.

November 14th.—Board of Health reports fourteen deaths from yellow fever for last week.

I have had two cases of obstinate continued fever lately; a negro boy aged nine years, and one, age fourteen years. Gave quinine, fifteen to twenty grs. to each, and soon broke the fever.

MEM. *December 4th.*—The report of the Board of Health for the week ending November 18th gives six deaths from yellow fever. That form of fever has now almost vanished, and given place to *intermittent and continued fever*. There is but little fever of any kind seen in private practice. The winter diseases, such as catarrhs, bronchitis and the like, begin to appear.

December 11th.—Board of Health reports *one death* from yellow fever for the week ending *December 9th*, about *the last* of the season.

MEM. *December 12th and 13th.*—Two cases of *Asiatic cholera* have been admitted into the Charity Hospital.

Here my *memoranda* concerning the fevers of the year were brought to a close, and my attention directed to the subject of *epidemic cholera*, which now began to prevail in this city. At the request of the editor of this Journal, I drew up a sort of historical sketch of the first epidemic of cholera, but it was not finished in time for insertion into the January number. As it was a subject of general interest at the time, I gave it to one of our newspapers.

It now remains to review the facts that have been presented; to make out some statistics; to offer a few remarks on the general character of the yellow fever which prevailed; and to say something about the treatment which I adopted.

In regard to the importation of yellow fever from Mexico, it is quite probable, that the facts which I have presented, both in this paper and in my account of the epidemic of 1847, will be viewed in different ways, according as the minds of the readers may be biased by preconceived opinions or foregone conclusions. As before stated, my main object has been to collect, and present as many facts as I could, relative to the subject. If they are not given in too rude a manner to be *intelligible*, people may make of them what they *can*, or what they *please*.

In common with others, I am entitled to an *opinion*, and I shall not withhold it, although it be of no value.

Be it remembered then, that ever since the city of Vera Cruz fell into the hands of our victorious army, (March, 1847,) the intercourse between that place, and New Orleans has been uninterrupted and very great:

Be it remembered that yellow fever prevails in Vera Cruz all the year round, if there be any unacclimated subjects present:

Be it remembered that between the first of May and August, 1848, about 30,000 men, mostly *unacclimated*, came from Vera Cruz to New Orleans; that these men came on ships, and in bodies numbering from 150 to 450; that a few cases of yellow fever occurred on board these ships, and at the hospitals and hotels in New Orleans, without *in a single instance* communicating the disease to those around them. In this observation I have the concurrence of *all the army and hospital surgeons*, with whom I have conversed, as well as the physicians of this city and our *Board of Health*:

Be it remembered that yellow fever began to prevail here this year, in the month July, the usual time of commencement when we have an epidemic, and that of the *first thirty four* cases admitted into the Charity Hospital, up to August the 1st, only *eight* had come from Vera Cruz; and of the *first thirteen deaths* in that hospital, only three patients had come from Vera Cruz:

Be it remembered also, that the circumstances attendant upon the return of our troops from Mexico, afforded the best opportunities imaginable for the dissemination of a contagious or infectious disease. The communication of Surgeon J. B. Porter, U. S. A. to be appended to this, will be found to contain some additional facts relative to this point. Let us now examine the statistics of fever, obtained from the N. Orleans Charity Hospital.

TABLE SHOWING THE NUMBER OF ADMISSIONS FOR THE DIFFERENT FORMS OF FEVER, DURING EACH MONTH OF THE YEAR 1848.

	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov	Dec.	ToTAL.
Intermittent Fever, ..	187	115	101	72	110	160	219	310	299	334	271	233	2411
Remittent	5	8	17	14	25	57	101	87	64	68	39	5	490
Typhus and Typhoid.	520	588	267	169	117	28	23	11	9	56	64	30	1882
Yellow.....					2	2	31	462	597	105	34	1	1234
Catarrhal.....	10			1		2							13
Bilious.....	22	17	11	14	4	13	32	27	19	6	5	3	173
Epheuneal.....	10	5	8	6	4	3	5	14	9	5		4	83
Congestive.....	2		2	2	3	13	8	16	2	1	4	1	54
Scarlet.....				2	1	1	1	2					7
Dengue.....									5	1	1		7
Puerpual.....											1		1
Continued.....	1	1			1	1	1				1		6
	757	734	406	280	267	280	421	929	1004	576	420	277	6361

Total admissions of all diseases, 11,945.

The facts here presented correspond with the statistics of fever which I published in the number of this Journal for July, 1848. It will be seen that *intermittent fever* prevailed throughout the year; gradually increasing and declining with the progress of the seasons, as follows:

In the Spring, there were admitted 283 cases;

“ “ Summer, “ “ “ 689 “

“ “ Autumn, “ “ “ 874 “

“ “ Winter, “ “ “ 535 “

It will also be seen that considerably more than *one third* of all the fevers admitted, were *intermittents*, notwithstanding an extraordinary prevalence of *ship fever*, here called *typhus* and *typhoid*, numbering 1884 admissions, and a mild epidemic of *yellow fever*, numbering 1234 admissions.

From the Annual Report of diseases at the Charity Hospital for 1848, we learn that the number of deaths from *all fevers* was 813; of which 420, *the greater part*, were from *yellow fever*.

From the Annual Report of the Board of Health, published in this Journal, (March 1849), we learn that “the aggregate number of reported interments, in the city of New Orleans, from the 18th December, 1847,

to the 1st January, 1849, was 7,719." In the following number, (for May) an error occurs in the remarks of the editor, where he states the total mortality for the year, to be 9,352. (See page 797.) On inquiry, I found this error to arise from extending the bill of mortality into more than three months of the present year. The previous report of the Board is correct, with the exception of twelve days taken from the year 1847. It appears that the total number of deaths from *yellow fever* in the city was 872. On examining the records of the Board of Health, I ascertained that the total number of deaths from *all diseases*, during *August and September*, amounted to 1578; and from *all fevers*, 710; of which, 616 were from *yellow fever*. Now, notwithstanding all these recorded facts, the Board of Health never admitted that yellow fever was *epidemic* at any time during this year. As I remarked in my account of the yellow fever of 1847, the term *epidemic* is understood in this city to mean, *a disease that prevails to a great extent and predominates over all similar or kindred diseases at the time*. Now I have just shown from the records of the Board of Health, that the number of deaths from *yellow fever* in *August and September*, amounted to 616; whilst from *all other fevers*, there were only 94 deaths.

So much for the *deaths*; but let us again refer to the Charity Hospital for statistics respecting the number of fever cases *admitted* during the months of August and September. It appears on the books of that institution, that during these months, the number of cases of *yellow fever* admitted, was 1059; the number of cases of *all other fevers* admitted, was 894. What better evidence can we require of a disease predominating over all others of the kind, then prevailing? We confine our observations to this limited period, because no one would contend that yellow fever was *epidemic* before or afterwards.

My remarks relative to the Board of Health are not made in a *cen-sorious spirit*. I am well aware that the members of the Board occupy a disagreeable and unsatisfactory position. They are expected to furnish the community with all the information that may be desired, relative to *public hygiene*, whilst they are not endowed with any *executive powers* whatever. Their transactions are sometimes severely criticised, whilst their admonitions are generally *disregarded*. In short, all that is now effected by our Board of Health is *to let us know from time to time, how many people have died*. In the progress of time, when *thousands more* shall be added to the vast number already destroyed by *avoidable* diseases, it is to be hoped that our city councils will see the necessity of examining into the *causes* of such evils, and authorise their Board of Health, not only *to point out*, but *to have enforced* such measures as are best calculated to preserve the public health.

THE GENERAL CHARACTER OF THE EPIDEMIC.

I fully agree with the editor of this Journal in styling the predominant fever of the summer and autumn, *a mild epidemic of yellow fever*. It was also a *modified* epidemic, i. e., it differed from those which preceded it. But this might be said of each one; for the general character of no two epidemics is precisely the same. However, this presented some extraordinary peculiarities, which I shall proceed to point out. There were many cases in which the fever was accompanied, or followed by

a large number of *boils*, sometimes extending over the entire body and extremities, from the head to the feet. These boils were generally worse on the *back*. One gentleman whom I attended, had probably *fifty* in this region. A number of physicians told me they saw instances of the kind. They generally made their appearance as the fever declined, and were exceedingly troublesome during the convalescence.

The fever of this year was attended with more than the ordinary degree of pain in the back and limbs. This gave rise to the opinion entertained by some physicians, that a form of epidemic fever, called *dengue*, was prevailing together with yellow fever. This opinion was further substantiated by the fact that many *acclimated persons* and *long residents* suffered attacks of the prevailing fever. Another argument advanced by the advocates of *dengue*, was based on the facility with which the fever, with its distressing symptoms, was relieved by mild and simple remedies, if taken in time. Now, for myself, I confess I could see nothing in these facts to invalidate the opinion which I entertained, with many others, that *the prevailing fevers of the season were merely different types of some general disease, arising from the same remote cause*. The remote *febrific cause* produces different effects upon the various individuals exposed to its influence. Creoles or natives, especially those who had passed the age of puberty, would either resist its influence altogether, or if taken sick, would only have a mild form of fever. It would be pretty much the same with persons who had resided here a long time, and had suffered an attack of yellow fever. Negroes, from some peculiarity of constitution, would be for the most part but slightly effected. Ladies who remain within doors, and avoid the most powerful exciting causes, such as exposure to the sun, intemperance, &c., generally have but mild attacks. Whilst persons recently from the north or the interior, who were exposed to the febrific cause for the first time, generally have the most severe attacks. These remarks are applicable to the summer and autumnal fevers of any year, and can be illustrated by the various forms or types of fever to be seen at the same time every year. (See the *statistics of fever* at the N. O. Charity Hospital.) I can readily conceive the *remote cause* of all the endemic fevers of this locality to be *essentially the same*; though it doubtless undergoes changes or modifications according to the progress and peculiarities of the seasons. Nor ought we to expect to see greater uniniformity or similarity in its effects, than we witness in the seasons themselves. No two seasons are *precisely alike*, nor are any two epidemics of fever. The simplest form of endemic fever, (*intermittent*) prevails here throughout the entire year; predominating over all others during the healthier seasons, but gradually running into the more malignant types in the sicklier seasons, and regaining its ascendancy on the approach of frost. In some years, the intermittents predominate throughout; as in 1845, when the whole number of fever cases admitted into the Charity Hospital, was 1763, of which 1403 were intermittent; and during the months of August, September and October, the intermittents numbered 571, whilst all other fevers numbered only 360.

During the summer and autumn of 1848, the usual variety of fevers were to be seen, such as *intermittent*, *remittent*, *yellow*, and *typhoid*, and the customary difficulty existed of diagnosing between cases of severe

remittent and yellow fever. It often could not be done until the latter stages of the disease, whether terminating in recovery or death. The generality of cases yielded readily to treatment, if promptly applied. Several physicians told me they relieved many cases by a dose of castor oil, a mustard foot bath and some warm tea. Yet it is not to be denied, that when similar attacks were *neglected* or *mal-treated*, they had a *tendency to death*, and the fatal termination seldom failed to display *indubitable marks of yellow fever*. Seeing this to be the case, I always thought it safest to resort at once to what I conceived to be the most efficient treatment. The Annual Report of the Charity Hospital admits but *eight* cases of *dengue*, and no death. Much more was said of it in private practice, though I heard of no death from it. It was not a *killing* complaint, but always called in the aid of "*Yellow Jack*" when an *executioner* was wanted. So far as I have been able to ascertain, the same sort of epidemic fever prevailed at Natchez, Vicksburg, and other places. Many persons were attacked, but *few died*, and these generally with *black vomit* or *hemorrhage*.

Now if I am not mistaken, the epidemic called *dengue*, which prevailed twenty years ago in the West Indies, Charleston, New Orleans and other places, was a very different thing. That complaint cut some fantastic capers; often the pain (most exherciating) was confined to a finger or toe, an eye or some other spot; and the attendant fever was generally followed by an *eruption* somewhat resembling measles or scarletina. Ours raised a crop of *boils* in many cases, but by no means in all. Now, why the fever of this summer and autumn should have been attended by extraordinary *neuralgia* and *crops of boils*, it is impossible to say. We need only state the facts, together with our impression, that there was no *separate and distinct disease* yclept *dengue*, which prevailed here at the same time with *yellow, remittent, and intermittent fever*.

Treatment.—I come now to a point, which is always looked to with interest by the reader. The medical philosopher may delight to investigate the *causes* of disease and the concatenation of symptoms and lesions from beginning to end; but the mere practitioner and the community at large, look at once to *results*.

If they can find out how to *cure* a fever, they will leave it to the *amateur* to study out the *rationale*. As yet, no special or particular plan of treatment has received the unqualified sanction of the profession. Certain remedies, such as blood-letting, mercurial cathartics, cinchona and its preparations, &c, have commanded extensive approbation; yet, among their advocates there has ever existed much diversity of opinion as to the proper method of applying them, and all of them have met with uncompromising opponents.

In my account of the yellow fever of 1847, I gave a brief outline of the principal general plans of treatment pursued by the physicians of New Orleans. I spoke of these under two heads, viz: the *abortive* and the *celectic*, and designated the principal remedies relied on in each. From that time I resolved to make a fair trial of the *abortive method by large doses of the sulph. quinine*, as soon as an opportunity should offer. I pursued this method in the fevers of 1848, and I confess that

the results were very satisfactory to me. From the 2nd of August to the 9th of November, I treated seventy-five cases of fever. Most of them were mild, but some very severe. Out of the whole number, but two died; one after discharging me and calling in another physicians, and the other from a *relapse*, in which I did not see him until a short time before death. I prescribed quinine *in all the cases*, and more liberally than I ever did before. I gave it in doses from 10 to 30 grains; generally with laudanum or morphia; sometimes with blue mass. I gave it by the *mouth*, by the *rectum*, and *endermically*. I prescribed it as early in the attack as I could, as boldly as I thought necessary, or rather as I could venture, and during the *exacerbation* of the fever. If given with *sufficient boldness*, the general effect was to subdue the fever within a few hours, and produce ease and rest. I generally ordered a purgative enema and hot mustard foot bath previous to the first dose of quinine, and after this produced a remission of fever, I prescribed a dose of castor oil, or some other mild cathartic. In a few instances, I gave ten or fifteen grains of calomel with pulv. rhei. or ext. colocynth comp. But the best way to show how I gave the sulph. quinine and other medicines, is to report a few cases. I took at the time full notes of *fifteen cases*. To give them all would extend this paper too far. I shall therefore only report a few cases; selecting such as will illustrate the different grades and peculiarities of the prevailing fever.

Case 1.—Mrs. J., a married lady, aged about thirty years, unacclimated, was attacked with chill and fever on the evening of the 1st of August, and suffered greatly throughout the night. August 2d, I was called to see her very early in the morning. I found her with a burning fever; skin hot and dry; severe pains in the head, back and limbs; intense thirst; tongue slightly coated; very restless. She had taken a dose of castor oil, which had not yet moved the bowels.

Treatment.—Purgative enema; hot mustard foot-bath. As soon as the bowels are open, take the following:

R.—Sulph. quinine,	℥i.
Tinct. opii.	Gutt. xxv.
Mucilage acaciæ,	℥i. M.

All at one dose.

Evening.—Feels much better; bathed in perspiration; bowels open; but little pain.

Treatment.—Repeat the dose of quinine and laudanum at night.

August 3d.—Found patient cool and clear of fever; free perspiration; no pain; slept well.

Treatment.—Sulph. quinine grs. x. at one dose; gruel.

Evening.—Completely relieved. Take 5 grs. quinine,

August 4th.—Convalescent. Discharged.

Case 2.—Mrs. P. aged about 28; rather delicate and nervous; says she had yellow fever in Vicksburg last summer; has never spent a summer in New Orleans. On the night of August 21st, she was attacked with chilliness, soon followed by hot fever and violent pains in the head and back. I was called to her early in the morning, August 22d. I found her with high fever; skin hot and dry; severe pains in the head and back, pulse full and bounding. I advised her to be cupped, but she refused positively.

Treatment.—Hot mustard foot-bath; purg. enema. As soon as the bowels are moved, take the following; R—Sulph. quinine, grs. x. pulv. opii. gr. i. M. All at once.

Evening.—Greatly relieved; has sweated profusely, which she says she never did before; has slept, and now has but little pain; bowels open.

Treatment:

R—Sulph: quinine.
Blue mass, aa grs. x.
Sulph. morphia, gr. 1-4. M.

All at once.

August 23d.—I found her perfectly relieved; had slept well, and sweated profusely; has no fever—no pain.

Treatment.—Purg. enema; chicken broth; lemonade.

August 24.—Has continued to improve. Discharged.

Case 3.—August 25th.—Early this morning I was called to see Mrs. T., a young married lady, supposed to be two or three months advanced in pregnancy. She was attacked last night with rigors, followed by high fever, with violent pains in the head, back and limbs. I found her with severe pain in the head and back; skin hot and dry; face flushed; eyes injected, and suffused; great thirst; nausea; pulse 120, and strong. I advised her to be cupped over the mastoids, but she positively refused. She was willing to be bled from the arm, but I concluded it might be dispensed with.

Treatment.—Hot mustard foot-bath; ol. ricini in small doses, to be aided by cathartic enemata. As soon as the bowels are freely opened, take the following at one dose:

R—Sulph. quinine, ℥i.
Tr. opii. gutt, 25.
Mucilage, ʒi. M.

Evening.—Found her greatly relieved. She had thrown up the oil, but the enemata had moved the bowels freely. She then took the quinine, and soon became quiet. She is now in a profuse perspiration; has but little pain, and has slept; thirst relieved. She vomited about two hours after taking the quinine.

Treatment.—Another enema, and the following dose at night: R—Sulph. quinine, mass hydrarg. aa grs x; sulph. morphia, gr. 1-6. M.

August 26th.—Found patient free from pain, but harrassed with perspiration; every thing about her was saturated. She slept well, and is clear of fever; feels hungry, and has but little thirst. Ordered chicken water, and porteree.

Evening.—Says she is well; has no fever or pain.

August 27th.—Rested well, and is convalescent. This morning, had her customary morning sickness, vomited bile, and was soon relieved.

August 28th.—Not so well. She was imprudently removed to another room and bed last night, and it has caused a relapse. She awoke this morning with headache and nausea; vomited bile, and still feels badly; has some fever. Ordered a foot-bath and some warm tea; cold cloth to head.

Night.—Still unwell; more fever, but sweating; nervous, and cannot sleep; slight nausea. Ordered the following: R—Sodæ bicarb.

℞ii; Sulph. morphia, gr. i; Aqua flor. aurantii; Aqua distillata, aa ℥ii. M. A table spoonful every hour till she sleeps.

August 29th.—Took three doses of the anodyne last night and rested tolerably well. Still has some fever, and uneasiness of head. Ordered infus. cinchona and serpentaria, a wineglass every two hours. *Evening*: feels better, has sweated and slept through the day. Take nothing.

August 30th.—Rested well and is clear of headache and fever again. Ordered ferro-cynate quinine. grs. vi. blue mass, grs. iv. M. ℥ pil. No. 2. One now—the other in three hours.

Evening.—Perfectly well; discharged.

These cases will answer as fair specimens of mild attacks promptly relieved by the liberal use of quinine. I treated many similar cases and with the same happy results. I shall now give some cases of a much more serious character. I fear I shall tire the reader, but I must crave his attention to the following cases. They are taken almost *verbatim* from my note book, and were written at the time of occurrence.

Case 4.—Dr. A. of Lafayette, an athletic man, of sanguine temperament, aged about 38 years; has lived in lower Louisiana for five years past, but never spent a summer in New Orleans, nor had yellow fever. I was invited to see him by Dr. S., his attending physician, about noon, August 20th. I found him in the fifth day of yellow fever. Dr. S. told me he had been well purged, and taken 25 grains of quinine early in the attack, and that by means of hot foot baths, warm drinks and covering, he had been made to sweat tremendously. He is now as red as a boiled lobster; skin fiery hot and sweating; very restless, yet has but little pain; intense thirst; tongue covered with a thick white coat on the centre, the edges red; gums very red; eyes injected; uneasiness of stomach, with frequent eructations; abdomen tympanitic; urine highly colored and rather scant; the prickly heat over the whole body, and very annoying. I told Dr. S. that I thought Dr. A. was in a very critical condition; in short, that he was in great danger of *black vomit*. I advised the bicarb. sodæ with morphia every hour or two, until he slept; an enema of cold water or flax seed tea, and lumps of ice *ad libitum*.

At 9 P. M., I was called in haste to see him. My previous advice had not been followed immediately. I was told that in the evening, Dr. A. had a sort of *collapse*; his extremities became cold and cramped; difficulty of breathing, with a sense of sinking. These distressing symptoms had been relieved by frictions with brandy, the soda and morphia before advised, and ten grains sulph. quinine, insisted on by Dr. A. himself. When I arrived, I found him somewhat relieved, but very apprehensive as to the result of his case. Dr. S. was now attacked with fever, and requested me to take charge of the case, with Dr. T. of Lafayette. I advised the covering to be lightened; a large blister on the stomach, and to continue the bicarb. sodæ and morphia.

August 21st.—Found Dr. A. somewhat relieved, but as I thought, still in danger of *black vomit*. There was no hemorrhage as yet, but the skin and mucous membrane were *so turgid*, that I did not think he could recover without *hemorrhage*. I had often observed that when hemorrhage was threatened, if it commenced from the *nose* or *mouth* before it did from the *stomach*, the patient stood a better chance of reco-

very. from this I inferred, that in such a condition, an *artificial hemorrhage* or *revulsive bleeding*, as the French call it, might produce a happy effect. This patient had too much blood, with a hemorrhagic tendency; but I would not use the lancet, from fear of *sudden prostration*, in his nervous state, and so late in the disease; nor apply cups over the mastoids or epigastrium, from the fear that the scarifications would never cease to bleed, as I have sometimes witnessed. I therefore advised half a dozen leeches to be applied to the *internal malleoli*; cold cloths to the head; continue to eat ice.

Evening.—I took Dr. W. C. Kennedy, one of our most experienced practitioners, up with me to see him. We found him pretty much in *statu quo*; the leeches had *not been applied*, and his skin was still very red and hot. I insisted on the application of the leeches. Drs. K. and T. did not object; but at the same time, they did not anticipate as much benefit from them as I did. Dr. K. recommended the covering to be *very light*, and the body to be sponged with cold vinegar and water every half hour. Both remedies were now used.

August 22d.—We found Dr. A. vastly improved; the leeches had bled *profusely*, and the cold sponging had proved most grateful. He rested well, and is now *cool, quiet* and *comfortable*. From this time he improved steadily, and on the 25th, we discharged him, completely convalescent.

This is an instructive case in several respects. On reflection, after a more extended experience with the large doses of quinine, given early in the attack, I must think that Dr. A. would never have become so ill, if this medicine had been used more freely in the beginning. He took one good dose of 25 grains, it is true; but he probably required several such doses, in conjunction with opium, and perhaps blood-letting. The following case will show more plainly the *failure* of quinine, and very probably for the same reasons.

Case 5.—*Bridget*, an Irish servant girl aged about 20 years, was unwell for about a week, with headache and slight fever; she took a dose of senna and one of castor oil, and kept about her business until Friday night, August 25th, when she took a footbath, and soon afterwards had a high fever. In the morning of August 26th, I was called to see her first. I found her with considerable fever and headache, but sweating moderately; thirst not distressing; tongue pretty clean; bowels open from a dose of oil this morning.

Treat.—R.—sulph. quinine 3ss. pulv. opii gr. i. M. Take all at once; hot mustard foot-bath; cold cloth to head.

August 27th.—Found B. much better this morning, but not clear of fever, as I had expected. She said she was pretty easy all night and sweated freely, but did not sleep well. This morning, she has but little uneasiness in the head; back easy—pulse 88; skin warm and sweating; tongue coated in the centre, edges red; not much thirst.

Treat.—Cold cloths to head; barley water; no medicine.

Evening.—Much the same; skin rather warm, but sweating; pulse 88; no pain. Ordered to be sponged with vinegar and water; no medicine.

August 28th.—Did not sleep well; has less fever, but not clear; skin rather warm, and sweating freely—pulse 84; no pain; has some appetite. *Treat.*—Sponge body; anodyne at night.

August 29th.—Much the same as yesterday; rested only tolerably well—still has some fever, though sweating; tongue moist, edges not so red. *Treat.*—Purg. enema—sponge body again.

Evening.—*In statu quo*; says she feels very weak. I determined to make one more strong effort to extinguish the fever, and ordered the following :

R.—Sulph. quinine, inass. hydrarg. aa grs. x.

Sulph. morph.

gr. 1-4. M. ℥ pil.

Take all at once to-night.

August 30th.—Rested pretty well; has no pain, but still has slight fever; skin rather dry, but little thirst. *Treat.*—Purg. enema; continue sponging; thin arrow-root.

Evening.—Still has fever; skin rather dry—had a dark thin stool by the enema. *Treat.*—Repeat enema; spt. mindereri, ℥ss. every two hours.

August 31st.—Did not rest well; still has fever; skin hot and dry; pulse 90; no pain—feels very weak. *Treat.*—Gave the infusion of cinchona and serpentaria, to which was added a small quantity of Rochelle salts, every two hours.

Evening.—Found *myself* discharged. An Irish cousin of Bridget had called to see her for the first time, and finding that she had been sick *five days* and the fever *not yet broken*, she concluded, (properly enough, perhaps,) that it must be *my fault*. She therefore prevailed upon Bridget, against her inclination, to discharge me and call in *her* physician. Of course I withdrew, and left the case in the hands of the other physician; but not without serious apprehensions for the result, as he did not inquire of me what treatment had been pursued. I think my error has been in not pushing the quinine far enough in the beginning of this case. I ought to have given her one or two more large doses, and perhaps, had her cupped; but the fever seemed to be so much *crippled* by the first large dose, that I thought it would soon disappear. In such another case, I should pursue a bolder practice. I still think she ought to get well.

P. S. Thus far had I made my notes, and saw no more of the case. On the 2d of September Mr. L., the gentleman at whose house B. was staying, called on me to say that she was dead; that she vomited before death, but did not throw up *black vomit*. The attending physician had made her sit up in bed the evening before death, not knowing how much debilitated she was. She began to sink soon afterwards, and died in the night.

I introduce this case to show the *failure* of quinine; but I confess the remedy did not have a fair chance. I can but think that I might have saved her life, if I had continued in attendance; but she had no chance with a new physician, who knew nothing of the previous history of the case. In yellow fever, many persons have been lost simply by getting up in bed or out of bed at an improper time.

Case 6.—*Bilious fever from the country; recovery; relapse and death, like yellow fever.*

Sept 1st.—I was called to see Mr. G. of Georgia; a robust man aged about 56 years. He had been trading up on Red River, and arrived in

this city on yesterday, suffering under a severe attack of *bilious fever*. I found him with high fever; severe pains in the head and back, and vomiting great quantities of *yellow bile*. He had been attacked with chill &c., about 24 hours before reaching the city, probably one or two hundred miles distant. He had taken a dose of calomel and rhubarb, and been well purged, though his bowels were now somewhat confined.

Treat.—A sinapism to the epigastrium; a purgative enema; hot mustard foot-bath. As soon as the stomach becomes more quiet, give the following dose. R—sulph. quinine grs. xxv; tr. opii. gutt. xxx; mucilage, ʒi. M.

Sept. 2d.—Much better; has rested well; sweated profusely; *fever gone*. Take 20 grs. quinine.

Sept 3d.—Convalescent. I advised him to take a little quinine every morning, and to go on home without delay, as yellow fever was prevailing here, and if he should relapse, he would be apt to have that form of fever. With this, I discharged him, not expecting to see him again.

Sept. 8th.—I was called to see Mr. G. again. Instead of leaving the city, as I had advised, he walked and rode about, attending to business; in the mean time drinking freely of ardent spirits. This improper exertion had brought on a relapse, and he had been sick two days before I was called. I found him with high fever and pains in the head and back; he had distressing nausea and vomiting, but *did not throw up bile*.

Treatment.—Sinapism to epigastrium; hot must. foot-bath; and the following dose. R—sulph. quinine grs. xxv; tr. opii, gutt. xxv; urucilage, acie ʒi. M.

Sept 9th.—Seems better again; fever down, stomach still irritable. Repeat sinapism; give mixture with sodæ bicarb. and sulph. morphia.

Night.—Feels a little better, but still has some irritability of stomach. Continue mixt. sod. and morph.

Sept 10.—Found him with hiccough; had not rested well; stomach still irritable; throws up every thing he drinks; some *dark flocculi* seen in the ejecta. He had no nurse, and had neglected my prescription. I urged upon him the importance of having a nurse, and continuing the mixture of sod. and morphia; allowed some iced ale; ordered a mustard poultice to epigast.

Noon.—Found him asleep, and did not disturb him.

Half past four, P. M.—Called, and to my surprise, found him dead. I was informed that after sleeping about two hours, he awoke, threw up some *dark matters*, and *died soon afterwards*. The basin was shown me, and I confess the contents looked very much like *black vomit*, though not strongly marked.

Now here was a plain case of *bilious remittent fever*, fresh from the country, which was promptly relieved, and very probably would not have relapsed, if the man had left the city, as he was advised. When he did relapse, he might have been relieved again, if properly treated and in good time; but by neglecting himself, he was lost. In the *final stage*, the case showed the principal characteristic of *yellow fever*; but no person would have pronounced it such in the earlier stages of the relapse.

Case 6.—Bilious Fever, Yellow Fever, Typhus Fever, Black Vomit, Hemorrhage from the mouth—recovery.

The special attention of the reader is invited to the following case. The report is long, but it is worth perusal.

Philip Ryan, an intelligent Irish lad, aged ten years, had resided in New Orleans about six months; was attacked with a severe chill on Sunday morning, 17th September. He was living at the house of a very respectable gentleman on Bienville street, and the family displayed much interest in the case, as Philip was an uncommonly smart boy. This interest was particularly felt by Mr. H., who lived in the family, and took upon himself the nursing of the case. Mr. H. informed me that after the chill passed off, P. had a raging fever, with violent pain in the head; and that in about two hours, the pain in the head was suddenly arrested by *nausea and vomiting of bile*. His stomach now became the chief suffering organ; the nausea was distressing, and he threw up large quantities of *yellow bile*. I saw him first, late in the evening, and found him laboring under this distress of stomach; a hot and dry skin; intense thirst; bowels constipated. I ordered cold water freely to his head and body; purgative enemas. As soon as the bowels are freely moved, ordered the following: \mathcal{R} .—Sulph. quinine, grs. xv; tr. opii. gutt. xv; mucilage, \mathfrak{z} ss. M. At one dose. If the stomach will not retain it, give the same dose by enema.

Sept. 18. Found Philip very ill. The bowels had been but slightly moved, and he had continued to vomit almost incessantly. He looked pale and haggard, although his fever was still high; skin hot and dry; intense thirst; stomach distressed; still vomits bile. He had not taken the quinine and laudanum.

Treatment.—Infus. senna, manna and salts, by enema. Give the quinine as soon as the bowels are freely moved; continue cold water to head and chest. With great difficulty his bowels were moved once or twice, and the quinine was given by enema, but was retained only a short time; it was repeated, but without good effect. I ordered the dose to be given by the mouth, but it was rejected immediately. Ordered cups to the epigastrium, but by the time four ounces of blood had been taken, he became deathly pale, and very weak. He spent a wretched day and night.

September 19th.—Nothing had as yet seemed to do him any good; he was still hot, dry, thirsty, and vomiting. I laid him upon the floor and poured cold water freely upon him. This was *delightful*, and quieted him completely. Ordered it to be repeated, if he became hot again. It was repeated four or five times during the day, always with relief, but without producing perspiration. At night I prescribed morphia with cinnamon water, from time to time, to produce sleep.

Sept. 20th.—Found patient extremely ill; complained of great oppression and *burning* at the stomach; refused to eat ice, saying it made him feel chilly and sick. He now threw up *no bile*; tongue dry and slightly furred; rather red. His skin was pale and dry; he seemed very much prostrated.

Treatment.— \mathcal{R} .—Calomel, grs. iv; pulv. opii., gr. i. M. Divide into eight powders. Give one every hour. A blister over the stomach. Sulph. quinine, \mathfrak{z} i; tr. opii. gutt. xx. M. By enema. These

medicines seemed to stupify him, without producing any repose. When the blister drew, he was dreadfully tormented. Nothing could relieve him but cloths out of ice water. This quieted him, and he slept. About noon he awoke, and commenced throwing up *black vomit*. This was appalling, but still I did not despair of the case, as I had known several young subjects to recover after the appearance of this usually fatal symptom. Ordered iced porter *ad lib*.

September 21. Had a wretched night; *black vomit* continually.

Treatment.—The lower extremities to be enveloped in blankets, wrung out of hot water and vinegar; the arms to be rubbed frequently with hot vinegar and mustard. Infus. cinchona and serpentaria. with carb. ammoniæ, to be given by enema, every two hours. Port wine and ice, instead of the porter, as he preferred it.

Evening.—Seems very low; extremities cool; pulse very weak; very restless; still vomits black. Continue wine; blisters to the extremities.

September 22.—Got through the night pretty well, but is very low this morning; has some appetite; drinks chicken broth and port wine with avidity. Continue treatment.

Night.—Has had but little *black vomit* to-day. He is now quiet and asleep; skin still dry. but not so hot; has retained several of the last enemas; a great deal of wind discharged from the stomach and bowels; urine free. Complains greatly of his blisters. Continue remedies; also some lime water and orange flower water, when the flatulence is distressing.

September 23.—In *statu quo*. Had an exacerbation of fever in the night, and was rather restless; stomach occasionally oppressed by gas, but no *black vomit* since yesterday noon; has slight hiccough; pulse 120; skin dry; abdomen rather full; does not retain the enemata well; discharges some fæces with them; drinks wine freely.

Treatment.—A large flax seed enema, to empty the bowels; afterwards, enemata of cinchona serpentaria and soup. Continue the port wine.

September 24.—Philip pretty much the same; had an exacerbation of fever again, about 2 o'clock last night. This morning, sleeps continually; occasionally sighs aloud; hiccough continues; does not vomit; passes wind freely from the bowels; no pain; very feeble; urinates freely; sordes on the teeth; tongue dry, and has a dark fur on the back part. Dr. McCormick saw him with me, at 11 o'clock, A. M.—thought him almost hopeless; hiccough pretty bad when we were there. Dr. McC. suggested an enema of quinine and tinc. opii., a few hours before the nightly paroxysm of fever. We ordered 8 grs. carb. ammonia to each of the enemata now given.

Night.—Mr. H. came round to tell me Philip had been pretty quiet ever since our last visit; hiccough better; he had begun to sweat for the first time; could not retain the enemata of cinchona, &c.; passed a little dark fæces with every one; still very drowsy; talks in his sleep.

Treatment.—R—Sulph. quinine, grs. x; tinct. opii. gutt. x; mucilage, ʒ i. M. Give by enema. Blister to *nucha*; continue the wine, &c.

September 25.—Rested well most of the night; sweated freely. This morning looks brighter, but is very weak. Continue the wine and soup freely.

Evening.—Found him very restless; constantly tossing about; pulse very feeble; urine not so free as heretofore. *Treatment:*

R.—Aqua ammon. acetat.

Aqua camphoræ, aa ʒi.

Tr. opii, 3 ss. M.

Give half a table spoonful every two hours; iced champagne freely. Repeat the enema of quinine and laudanum at night, if he does not rest.

September 26.—Found Philip sound asleep; had taken the enema of quinine and laud., but could not retain it long; continued restless till late in the night; then slept well.

At 10, A. M. I found him awake, and looking much improved; pulse slower and more full; tongue nearly clean; but little thirst; urine free; no stool; has a good appetite, and is delighted with the *champagne*. Continue the wine and soup. Dress the blisters with quinine ointment.

Evening.—Looks better than he did yesterday, but is becoming restless again; skin warm and too dry. Ordered to resume the camphor mixture of yesterday; to have a flax seed enema.

Night.—Mr. H. came round to inform me he was sweating and sleeping well; the enema had not moved his bowels. Ordered to continue the mixture *pro re nata*.

September 27th.—Has spent a bad night; had a hot fever after midnight, and was very restless. This morning I found him pretty quiet; has slight hemorrhage from the gums; blood coagulated about his lips and teeth; he is hungry, and wants his soup and wine.

Treat.—Ordered his mouth to be washed with brandy and water; take five drops elixir vitriol every two hours.

Evening.—Much improved; sleeps; has a gentle perspiration; pulse down to 100; tongue and teeth clean; no hemorrhage; frequently draws long breath; has something like hiccough occasionally; urine free; no stool.

Treat.—Ordered sulph. quinine grs. x, tr. opii. gutt. xv., to be given by enema at 10, P. M. with the view to prevent the nightly paroxysm of fever.

September 28th.—Much better this morning. After taking the quinine enema, slept well until just before day, when he became restless, and continued so for an hour or two; then became quiet, and was easy when I saw him; sweating freely; skin cool and moist; pulse 84; tongue clean and moist; a little blood about the gums; quite hungry. Continue treatment.

Evening.—Philip appears to be convalescent; pulse 80; skin cool and moist; bowels open; urine free; &c. To take no medicine, unless he becomes restless at night; then the enema of quinine and laudanum.

September 29.—Rested well without taking any thing. Is completely convalescent to day. A thick crop of *sudamina* is to be seen over the abdomen and chest.

October 1st.—He has continued to improve, and now wants to get out of bed.

Remarks on the case.—This extraordinary case, to my mind, plainly illustrates the fact, that the terms *bilious remittent*, *yellow* and *typhus*, applied to the fevers seen in New Orleans, in the months of August and September, more properly designate *certain conditions of the system* produced by a *common cause*, or rather, certain stages of some general disease, than they do the existence of *diseases altogether separate and distinct*; for here we have all these types of fever displayed in a single individual and during the same illness.

In the beginning, this was as plain a case of *bilious fever* as was ever seen in the interior of Alabama or Mississippi; and if it had been cured within the fourth day, it would have been pronounced such by the physicians of New Orleans or Mobile. On the 4th day, he commenced throwing up *black vomit*; and now, no person would hesitate to call it a plain case of *yellow fever*. He had black vomit for three days; then hiccough for two or three days—then fell into a sort of stupid state, extremely prostrate; pulse 130; skin hot and dry; tongue brown and dry, sordes on the teeth, slight delirium, &c. And now, no physician, unacquainted with the previous history of the case, would hesitate to pronounce it *typhus*. Sauvages and Cullen called yellow fever *typhus icterades*; and certainly no physician of experience in New Orleans will deny, that if our yellow fever runs on beyond the 7th day, as it sometimes does, it presents many of the characteristics of *typhus*. This is frequently witnessed among cases that occur late in the autumn. In 1846, many cases terminated in hemorrhage and black vomit from the 11th to the 14th day.

The case is also interesting in respect to the *sulphate of quinine*. In the beginning, I could not bring it to bear *abortively*. His stomach would not retain it; nor could I get enough into him to do any good; but after *the 10th day of illness*, I prescribed it in ten grain doses, by enema, and had the blistered surfaces dressed with an ointment of it, with the happiest effects. I have hardly a doubt that, but for this valuable remedy, my patient would have been lost at last.

I was informed of several recoveries after *black vomit* this year at the Charity Hospital, but I did not have an opportunity to note them. At the risk of exhausting the patience of the reader, I shall report one more remarkable case, showing the effects of large doses of quinine given *early* and *late* in yellow fever.

Case 7.—Mr. A. W., a gentleman aged about 28 years; of nervous, sanguine temperament; has lived in New Orleans several years, but generally went away in the summer. He remained during the summer of 1847, and escaped sickness until late in the season, (October,) when he had a slight attack of fever.

August 29th, 1848.—He was attacked to-day with rigors, soon followed by a raging fever, with severe pains in the head, back, &c. Of his own accord, he took a dose of castor oil, which moved his bowels freely, previous to my first visit at 4 p. m. I found him in bed at his commercial office; his skin was very hot, but moist; face and eyes very red; pain in the head and back; tongue clean; great thirst.

Treat.—Advised him to be removed to his lodging immediately; to have a mustard foot-bath, and to take 30 grs. sulph. quinine at one dose.

Ten o'clock P. M.—Found him sweating most profusely; slight headache; less thirst; disposed to sleep. Take no medicine.

August 30th.—Says he slept about half the night, and sweated profusely; has less fever, but not clear; pulse 100; little thirst; tongue clean; has some uneasiness about the stomach and back. *Treat.*—*R.* ferro-cyanat. quinine, blue mass, *aa* grs. x; sulph. morphia gr. $\frac{1}{2}$. *M.* Make four pills. Take two immediately, and the others in four hours.

Evening.—Has rested well; no pain; no stool. To have a purgative enema.

August 31st.—Rested well; has slight uneasiness of the head, and stomach; skin warm, red and sweating; pulse 84; more thirst. *Treat.* Emollient poultice to epigastrium; cold cloths to head.

Night.—Pulse 80; sweating freely; skin cooler; head somewhat uneasy. *Treat.*—Purgative enema; afterwards, ferro-cyanat. quinine, and blue mass *aa* grs. v. sulph. morphia gr. $\frac{1}{2}$ *M.* At one dose.

September 1st.—Rested pretty well; feels better, but still has some uneasiness of head; some thirst; skin red and moist; pulse 80. Ordered purgative enema.

Night.—Had a slight exacerbation of fever to day; bowels open; pulse now at 80. Takes nothing.

September 2d.—Not so well to day; fever again at noon; more thirst. Ordered cream of tartar drink. Feels better at night.

September 3d.—Rested pretty well last night; feels easy; very weak; pulse 80. *Treat.*—Infus. cinchona and serpentaria with the addition of a little sal. Rochelle; try a little porter and broth.

Evening.—Had considerable fever again to day; headache; thirst &c. *Treat.*—Purg. enema; cold to head.

September 4th.—Burning fever all night; continues this morning; skin hot and very red; great thirst; no pain; urine free; bowels easy. *Treat.*—I determined to try the quinine again, and ordered ferro-cyan. quinine, grs. xii; sulph. morph. gr. 1-4. *M.*

One o'clock P. M.—I found his fever as high as ever; the medicines had produced no effect whatever. *Treat.*—I now determined to give a strong dose of quinine and opium, and ordered the following:

<i>R.</i> —Sulph. quinine,	grs. xxv.
Pulv. opii.,	grs. ii.
Mucilage,	3iss. <i>M.</i>

Take all at once. Apply six leeches to internal ankles; sponge the body with cold water.

Evening, 5½.—Had the pleasure to find my patient cool, quiet and comfortable; pulse again brought down to 80; had slept an hour or two, and sweated freely.

Night.—Much better; skin moist and cool. Ordered to be sponged again if he gets hot; small blisters to the legs.

September 5th.—Rested well; looks pale this morning for the first time; skin cool and moist; pulse 76; no pain whatever; feels very weak. Ordered light nourishment.

Evening.—Is somewhat restless, and cannot sleep. Ordered an anodyne at bed-time.

September 6th.—I was called to see Mr. W. early this morning, and told that he had come near falling over the balcony in the night; he had slept under the anodyne; then started up suddenly, as if in a dream, rushed through an open window upon the balcony, and would have gone over, if he had not been caught. This news caused unpleasant forbodings. When I arrived, I found him pretty quiet, and comfortable; pulse 80; skin warm &c., said he had been dreaming in the night. Ordered a blister to the nucha and some chicken broth. At noon Dr. Farrell met me in consultation. We found the patient low spirited and disposed to weep, in other respects, he was as in the morning. Dr. F. suggested three leeches to each temple.

Evening.—Much the same; the leeches drew but little blood; skin warm, and rather dry; pulse 80, full and soft; has taken chicken water all day. We ordered three more leeches to the temple; to be sponged if he gets too warm; no medicine.

September 7th.—We found patient cool and comfortable; had rested well; pulse under 80; skin moist. Ordered ale and chicken water.

At one o'clock, the nurse having retired to sleep, and left a colored man in charge, Mr. W. took this occasion for another strange freak. He ordered the boy to go to the kitchen and bring him some warm soup, appearing to be perfectly in his senses. Soon after the boy left the room, Mr. W. got up and walked down stairs to the front door, opened it and fell headlong into the street. A man happened to be passing by at the time, and seeing such a looking object, at once imagined that something must be wrong, and rang the bell violently. Mr. W. was soon taken up in an exhausted state, and carried back to bed. Reaction soon took place and he again became comfortable, with the exception of severe bruises upon his thigh and elbow, occasioned by the fall on the pavement.

Evening.—Dr. F. and myself saw him and heard the foregoing narrative. Mr. W. spoke of it and said it was an *unaccountable freak*. He appeared to be perfectly sane, but could not imagine what induced him to go out. At night he complained of his bruises, and was somewhat feverish. Was sponged and took an anodyne.

September 8th.—Rested pretty well; though he had to be sponged several times. Seems much better this morning. Took ale and soup, and at night an anodyne.

September 9th.—Much better; slept well; skin pale and of natural temperature; pulse 72; is hungry. Allowed ale, and part of a squab.

September 13th.—Has continued to improve since last date; has taken an anodyne every night; has a keen appetite, and is now completely convalescent.

September 19th.—Mr. W. has continued to mend, but recovers his strength slowly. *Discharged.*

This interesting case is worthy of special attention. It displays in a striking manner the wonderful powers of quinine; but candor compels me to say, it shows also that I did not avail myself and my patient of the full extent of these powers. One dose of 30 grains, given on the first day, almost extinguished the fever. Very probably another

such a dose on the following morning would have done the work completely; but, as the most of inexperienced persons would have supposed, from the appearance of the patient, I thought it could be dispensed with. The consequence was, that the fever was gradually rekindled; and on the 6th day had become so high, that I had to resort to another bold dose, combined with opium, to arrest it. This did master it, but left the patient in a singular nervous condition. As strange as it may appear to those who never witnessed it, I am convinced that 30 grs. of the sulph. quinine, with 30 drops tr. opii., or two grs. of opium, given during the exacerbation, will, in perhaps nine cases of ten, put down a fever like pouring water upon fire. But this is not always all that is to be done. A good dose of calomel, (15 to 20 grs.) may now be required to emulge the liver freely, and to act upon the other secreting organs; and then one or two liberal doses more of quinine, to prevent the recurrence of fever.

Experientia docet; and nothing but experience can teach the profession the full powers of quinine. Some of the physicians of New Orleans had learned in 1839 and 1841, that large doses of the sulphate of quinine had the power of putting down the excitement of yellow fever, but I do not think they learned how to follow up the advantage thus obtained. Consequently, although the remedy has ever since retained high favor with some of our prominent American practitioners, they gradually fell back upon more moderate and repeated doses, say five to ten grains every two hours, until the system was fully under its peculiar influence. I would not be understood as condemning this method; it has the sanction of much talent and experience in this city; but I am strongly inclined to believe that the abortive method, by large doses combined with opium, and followed by calomel, if promptly applied, possesses superior advantages. All agree that the active treatment of yellow fever should be done as early in the attack as possible; now, if the disease can be cut short within 24 or 36 hours, as I believe it can, why should it be permitted to run on its customary course of from three to five days? But this method requires the sanction of a more extended experience than I have yet had with it. As I remarked in my previous paper, it is practiced by only a few physicians in this city. In the case of Mr. W., I think the peculiar nervousness witnessed, may have been caused in some degree by the quinine. In the case of a delicate lady, to whom I gave a dose of 20 grains during the exacerbation, the fever was promptly put down; but on the following day, she had distinct hysterical symptoms. However, these soon disappeared, and the fever did not return. Nor will it be denied that some cases of yellow fever, in which little or no quinine is given, are attended with extraordinary nervousness, requiring the extensive use of anodynes, stimulants and blisters. As yet, I have seen no bad effects from large doses of quinine, given early in the attack of yellow fever: I have thought I did, when given after the jaundice had appeared. I can readily imagine that in a severer epidemic than we had in 1848, free blood-letting in some way, might be found to be a valuable adjuvant to quinine, as was observed by the French physician, M. Maillot. This I must reserve for future investigation.

Dr. D. W. Brickell, one of the visiting physicians of the Charity Hospital, pursued the quinine practice boldly in this epidemic. His favorite prescription was quinine, 3 ss, pulv. opii. grs. ii. M. Given at one dose, during the height of fever, and repeat, if necessary.

I will here conclude my remarks, and invite the reader's attention to the more important communications which follow.

LETTERS FROM J. B. PORTER, M. D., SURGEON U. S. A.

NEW ORLEANS BARRACKS, March 9, 1849.

To E. D. Fenner, M. D., New Orleans:

DEAR SIR:—Your communication of the 4th instant came duly to hand, and in accordance with your request, I proceed to reply to the interrogatories in relation to yellow fever.

Interrogatory 1. "How long were you stationed at Vera Cruz?"

Answer. From the surrender of the town, March 29, 1847, to February 8, 1848. During the whole sickly season, I had charge of the General Hospital, the number of patients varying from 300 or 400 to 700 or 800.

Inter. 2. "Did you find yellow fever there at all seasons?"

Ans. Yes. I have seen black vomit in December and January, and in February, a Mexican from Jallapa, died in town of yellow fever. I left a patient, a Mexican woman from Jallapa, very sick with the disease, February 8, 1848; hence I have little doubt that strangers may have yellow fever in all months of the year.

Inter. 3. "What is considered the epidemic, or sickly seasons there?"

Ans. From 1st April to 1st December, or certainly, from 1st May to 1st December. In 1847, there was no yellow fever among the troops before May; but I was informed by residents, that it was surprising the disease did not show itself sooner. It commenced among the French and European Spanish, a short time before the American troops were attacked. In my opinion, the disease was worst in the hot weather of May and June. The rains of July seemed to cool the air, and modify the complaint.

Inter. 4. "What endemic fevers prevail at Vera Cruz?"

Ans. Every kind usually considered of malarious origin. I have seen mild intermittents there, mild and severe remittents, and a high grade of congestive fever. The yellow fever of 1847, was ushered in by a number of cases of congestive fever among the laborers in the Quartermaster's Department, much more terrific in appearance than yellow fever, and quite as formidable in reality.

Inter. 5. "Do the natives ever have the vomito?"

Ans. I cannot say that persons born and raised in Vera Cruz ever have the disease, but Mexicans, from the elevated back country, take it readily; much more so, it appears to me, than Americans. The inhabitants of Jallapa, and other towns on the road to the city of Mexico, have a great horror of *el vomito*.

Inter. 6. "From what you have seen, do you believe yellow fever to be contagious? Please give some of the most prominent facts you have observed bearing upon this point."

Ans. I do not believe in the contagion of yellow fever. I have never seen a single circumstance which would seem to prove contagion, and will proceed to detail a few facts which have occurred in the course of my professional service. No one will, it is presumed, deny that yellow fever is domesticated in Vera Cruz, whatever might have been its origin.

Yellow fever has prevailed epidemically, three times in St. Augustine, Florida, since the change of flags: in 1821, 1839, and 1841. From information derived from the old residents of the town, I am disposed to think that the fever of 1821 had a local origin. But I waive this. It was my fortune to be acquainted with every circumstance connected with the epidemic of 1841, and it is difficult, to say the least, to show any origin to the fever, unless a local one. There was no communication with any other place, for a considerable time; for weeks not a single vessel came into the harbor, and scarcely a stranger came to town by way of the St. John's River and Picolata. Not a single person came from abroad, sick with yellow fever or any suspicious fever, yet in the mean time individuals sickened and died of this disease: first, an industrious shoemaker—a Dutchman; next, a respectable merchant of the place; and both these had resided in town during the whole season. This was about the last part of September, and nearly at the same time a very suspicious case of fever, which I have not a doubt was yellow fever, occurred, but the man recovered. All these cases were in the "infected district," for there was an infected district, a *fons et origo mali*, a focus, from which the disease seemed to radiate to other parts of the town. All the persons first attacked had been permanent residents, through the summer, of this section of the town, where the streets were narrowest, population most dense, and where less attention was given, if possible, to good police than in any other portion of the city. Soon after, the disease became general, and the troops of the garrison, on the outskirts of town, suffered severely.

In the early part of October, Capt. Garner, 3d Artillery, stationed at Picolata, came to St. Augustine on public business, and was detained there several days. A few nights, (two or three,) before leaving town, he attended a Spanish dance, in what I have called the *infected district*, returned to Picolata, had yellow fever, and died. I did not see him, but his physician informed me, that the disease was yellow fever. If I remember rightly, an orderly, who went to St. Augustine with Captain Garner, also had yellow fever at Picolata, and died. It is to be recollected that this part of my communication is made from memory, but there is no uncertainty in relation to any statement, excepting this particular circumstance. No other persons at Picolata had the disease.

About the middle of October, or a little later, the whole garrison of St. Augustine was removed to the southern part of the peninsula, to act against the Seminole Indians, leaving several men behind, in hospital, sick with yellow fever. As only a guard was necessary, a part of company "G," 3d Artillery, Capt. Garner's own company, was sent over to replace the garrison. By this time, yellow fever had become prevalent,

and before the middle of November, when the epidemic ceased, the part of the company in Augustine was almost destroyed, while the portion which remained at Picolata continued healthy.

I do not recollect that any one had the fever in Augustine, who had resided there continuously for a year or two. Recently arrived strangers had it very generally. No officers belonging to the regular garrison, had it; they occupied the upper quarters, the men the lower rooms, on the ground floor; and the latter suffered severely. Some officers at the hotels had yellow fever. The patients were in almost all cases, males; few females had it, and in general lightly. The hospital steward had the disease in his own quarters, and not a member of his family, consisting of his wife, one or two children, and sister-in-law, had it. His place in the hospital, where yellow fever was abundant, was filled by an unacclimated soldier, who did not have fever, although he had a drunken frolic at the close of the epidemic—a dangerous experiment.

The summer was hot; weather dry, and often heavy rains; no attention whatever was given to city police; and the thick orange trees having been killed a year or two before, the yards and fields were covered with rank vegetation—the whole presenting local causes sufficient to account for the origin of the fever. None of the contagionists could ever point out the source of the disease. It may be proper to state that there were cases of common bilious remittent fever at the same time.

Since 1841, much has been done to improve the police, and with good effect; and allow me to remark *en passant*, that thorough policing is, in my opinion, of much more importance than all the quarantines ever instituted. In the year above mentioned, all Florida was sickly; yellow fever (I understood) was not uncommon at Tampa Bay, and at Tallahassee the mortality from it was dreadful. If I am not mistaken, it was also in New Orleans and Mobile. I have considered the yellow fever of St. Augustine to depend on the epidemic tendency or constitution of the atmosphere, combined with a favorable endemic condition.

During the past summer, yellow fever prevailed to some extent at Pascagoula, Miss., where the 1st, 2d, 3d, 4th, and 5th Infantry regiments, and seven companies of dragoons were encamped, on arriving from Mexico. I had charge of the General Hospital established there, organized it, and remained with it until broken up.

Case 1.—Soldier, 3d Infantry, Gen. Twigg's Orderly; admitted September 3d; had been sick about 24 hours; recovered. A severe and strongly marked case. Gen. Twigg's quarters were a quarter, or one-third of a mile from the Pascagoula hotel.

2. Soldier of 4th Infantry; admitted from camp, September 10th; sick three or four days (taken about 6th;) died. His regiment was encamped nearly a mile from the hotel.

3. 4. Two men already in hospital, with chronic complaints; September 11th; recovered. Hospital half a mile from the 1st Infantry and nearly two miles from the hotel, all the Infantry being encamped between the hospital and hotel.

5, 6, 7, 8. Between the 11th and 18th September, four men in the hospital taken sick; one steward and three invalids. Three recovered, and one invalid died.

9. A sergeant of the 5th Infantry admitted from his camp, 23d September; died. Camp of 5th Infantry half a mile from the hotel.
10. A soldier of 4th artillery, in hospital; taken 25th September; died.
11. A hospital cook, soldier; taken September 27th; died.
12. A soldier of 1st Infantry; from camp, half a mile from hospital; admitted, September 28; recovered.

Severe cases of fever were common in the country around Pascagoula; several suspicious cases occurred in the village, and some in the hotel. I have already stated that the infantry were encamped between the hospital and the Pascagoula Hotel. The dragoons were encamped two or three miles above the hotel, four or five miles from the hospital, and were more healthy than the foot soldiers---often, (almost always) the case. I saw but little of their sick, they having their own regimental hospital. They had yellow fever, one case at least, as I was informed by Ass't. Surgeon Steiner, U. S. A.

A Creole mulatto, free, residing four or five miles from Pascagoula, and one mile and a half from hospital, who supplied us with milk, sickened and died about the last part of October, the precise date not recollected. I saw him in the last stage; disease indisputable yellow fever. Previous to his sickness, he came daily to the hospital, but did not go into the sick wards. He was much exposed to the sun, and drank spirituous liquors freely. None of his family, consisting of his wife and a number of children, had the disease.

The question naturally arises, how came the first case of yellow fever at Pascagoula? Was the disease contracted at Vera Cruz, remaining latent a period of 50 days? It certainly was not imported from New Orleans or Mobile, for the troops came directly from Vera Cruz. It must then follow, unless the period of incubation might extend to 50 days from the date of embarkation, that the disease was local in its origin.

Inter 7.—"How were the men under your charge at Pascagoula affected by yellow fever?"

Ans.—Much of what might come under this head, has been anticipated in reply to the previous interrogatory. In the robust, the fever was generally developed, with considerable reaction in the first 24 or 36 hours, and running its course as usual, terminating in black vomit and death, or in recovery. Among the invalids, there might be simply yellowness, or black vomit might supervene after slight fever. Yellow fever was not general, however, as only 32 cases among the soldiers and discharged men, were registered. Perhaps several cases of milder character, recorded as remittent, might with propriety have been termed yellow fever. These 32 cases occurred from the 3d September to 19th November, the date of the last case of the disease. There were 13 cases in September, 17 in October, and 2 in November; add the cases of four women, hospital matrons, and there were 36 undoubted cases of yellow fever. The whole number of cases admitted from the establishment of the hospital, July 1st, 1848, to the breaking up, Nov. 23d, is as follows: Yellow fever, 32; all fevers, (including yellow.) 98: dysentery and diarrhœa (mostly chronic,) 449. All other diseases, 210—Total, 757; females not included.

It is highly probable that the number of cases of yellow fever would have been much greater, had not the troops moved off so early in the

season. The 2d Infantry left in the last part of July, the 4th Infantry on the 3d October, the 5th Infantry on the 5th October, and the 1st Infantry, and six companies of the 3d Infantry, on the 16th of October, leaving four companies of the 3d Infantry at the old camp, until the 23d of November. From the 15th October, to 19th November, there were nine cases of yellow fever in these four companies, or over one-fourth of the whole number for the season; add to these, two men taken sick in hospital, and there are 11 cases of this fever from the 15th October, or more than a third of the whole number.

Inter. 8. "Have you found the principal remedies usually resorted to in remittent bilious and intermittent fever, applicable in yellow fever?"

Ans. So much has been written on the nature and treatment of yellow fever, and my remarks have already extended to such length, that I shall be as brief as possible. At present, I regard yellow fever as a high grade of disease, similar to what is commonly termed bilious remittent fever; and the remedies are the same; modified, of course, according to the character of each particular case.

I have thus hastily thrown together some remarks, in reply to your interrogatories, but fear they will not prove of so much value in your investigation of yellow fever, as could be wished.

Very respectfully, sir,

Your most obedient servant,

J. B. PORTER,
Surgeon U. S. A.

GENERAL HOSPITAL, NEW ORLEANS BARRACKS, }
May, 11. 1849. }

To E. D. Fenner, M. D.

DEAR SIR:—

In a conversation a few days since, you made some inquiries in relation to the yellow fever of Vera Cruz, Mexico, and I have accordingly been induced to trouble you with a few remarks concerning that disease in 1847. The city of Vera Cruz surrendered to the American arms on the 29th March, 1847, and measures were immediately taken by the Surgeon General of the army, who was present, to form a general hospital for the sick and wounded of the besieging army, and also for the sick of the troops landing from the U. States; Vera Cruz being the base of Gen. Scott's operations in the field. The undersigned was detailed to take charge of this hospital, which went into operation in the first days of April. The first cases consisted almost entirely of chronic diarrhœa; there being no yellow fever in April and the first part of May.

The months of April, May and June were intensely hot and dry; but yellow fever, nevertheless, did not appear among the troops until the middle of May, and was ushered in by several cases of violent congestive fever among the laborers of the Q. M. Department. The disease continued violent until the last part of June; generally with high reaction, severe pain in the head and eyes, &c.

The treatment cannot be better shown than in the following statement to the Surgeon General, accompanying my report of sick and wounded for the quarter, ending 30th June, of that year.

"In regard to diseases about which volumes might be written, I shall be brief, and only glance at some important points. In the treatment of yellow fever, I regard quinine as the sheet anchor. I am abundantly satisfied with its effects in the yellow fever of Vera Cruz.

"When the yellow fever first broke out in May, it was with violence, and I was in the habit of combining sulph. quinine with calomel, in several of the first doses, at the same time employing leeches, free cupping, in many cases general bleeding, sinapisms, mustard pediluvia, &c. I found that many of my patients were more susceptible to mercurial influence that had been anticipated, and in consequence, some of them had disagreeable ptyalism. All those who had ptyalism, were severely attacked by the disease, and every one of them recovered. This is satisfactory, notwithstanding the disagreeable attending circumstances. However, I never wish to produce salivation in yellow fever

"During a part of May and June, general bleeding was resorted to in almost every case, there being strong arterial action, severe pain of the frontal region and eyes, &c. It answered a most excellent purpose. Then came a dose of calomel and quinine, then a dose *ol. ricini*; the quinine following regularly at the proper intervals. Such is the brief abstract of my practice in the before mentioned months."

July was not so intensely hot as the previous months. The rainy season had set in, cooling the atmosphere, and evidently modifying the prevailing fever. The general plan of treatment was the same as in the preceding months, with the exception of venesection, which was almost wholly abandoned. As before, cupping, and leeching to the mastoids, nucha, epigastric and lumbar regions, were freely and beneficially employed.

The treatment of yellow fever must commence early in the disease, to be successful. For practical purposes this fever may be divided into two stages; that of reaction, and of prostration, and it is only in the early part (the earlier the better) of the first stage, that the patient has a tolerable chance of being saved.

My general plan of treatment in Vera Cruz was the same in the first stage, with the exception of venesection, as above mentioned, from the beginning to the end of the fever season. The first thing was to place the feet and legs of the patient into a mustard bath, and apply sinapisms to the epigastrium, ligamentum nuchæ, limbs, wrists and ankles. At the same time, unless the stomach were irritable, a dose of 20 or 25 grs. sulph. quin. and 15 or 20 grs. calomel were given. Then cups to the mastoids, cervical lumbar spines, and epigastrium (or leeches to the epigastrium) were applied. In an hour or two, if the stomach were quiet, $\mathfrak{z}\text{i}$ or $\mathfrak{z}\text{ii}$ *ol. ricini* were given, followed at the proper time, by an enema; if much gastric irritation, the oil was omitted, and repeated enemata administered; all the while 15 or 20 grs. quin., with or without calomel, every 3 or 4 hours; for whatever is done in this disease, must be done quickly. By this treatment, free evacuations were usually procured in a short time, often preventing the occurrence of gastric irritability, or relieving it if already present. This is a brief abstract

of the treatment in the first 24 hours, the time in which the quinine may be expected to prove beneficial. After the second day, little or nothing can be expected from this article; indeed, but little after the first 24 hours.

In the 2d stage, that of prostration or exhaustion, strong medication was never attempted. Good ale or porter was usually the best stimulant and tonic, but cases would sometimes bear wine in some shape, and a few could even take brandy in preference to any other article. The patient's own feelings were the best guide. Good beef tea or chicken broth, in small quantities, or other mild nourishment was advisable. In this stage of the disease, small doses of mist. carb. ammon. or mist. ammon. et camphoræ, frequently repeated, appeared to be useful, and sometimes tonic doses of the sulph. quin.

I have thus given a hurried abstract of my general treatment of yellow fever at Vera Cruz in 1847.

Your very obedient servant,

J. B. PORTER.

Surgeon, U. S. A.

GENERAL HOSPITAL, NEW ORLEANS BARRACKS, }
May, 15, 1849. }

To E. D. Fenner, M. D., New Orleans:

As a supplement to my note on the subject of yellow fever at Vera Cruz, Mexico, in 1847, I send you the following statistics, which are at your service:

The mortality in the general hospital of that city was as follows:

Quarter ending 30th June.

Mortality per cent..	-	-	-	-	-	-	-	10.9
" " " from all fevers,	-	-	-	-	-	-	-	10.64
" " " " yellow fever,	-	-	-	-	-	-	-	17.41
" " " " diarrhœa and dysentery,	-	-	-	-	-	-	-	14.38

Quarter ending 30th September.

Mortality per cent.,	-	-	-	-	-	-	-	13.33
" " " from all fevers,	-	-	-	-	-	-	-	14.43
" " " " yellow fever,	-	-	-	-	-	-	-	34.82
" " " " diarrhœa and dysentery,	-	-	-	-	-	-	-	19.40

Half year ending 30th September.

Mortality per cent.,	-	-	-	-	-	-	-	11.90
" " " of fever cases,	-	-	-	-	-	-	-	12.80
" " " of yellow fever,	-	-	-	-	-	-	-	24.64
" " " of diarrhœa and dysentery,	-	-	-	-	-	-	-	15.85

The mortality in this hospital was necessarily great. All sorts of patients had to be received; those in a desperate and dying condition, as well as those who offered a fair chance for treatment. Troops were continually arriving from the U. S. during the whole summer—inexperienced and unacclimated troops—and were encamped on the beach, near the town, for days, and even weeks; exposed to all the causes of the prevailing diseases. Considering all the circumstances, it is surprising that the mortality from yellow fever was not much greater. An intelligent physician of the town informed me, that in the Mexican military hospital at Vera Cruz, (within the walls,) a mortality of fifty per cent.

in yellow fever was considered moderate; that 75 and 80 per cent. was not very uncommon; and that even 90 and 95 per cent. mortality had been known in certain seasons, and in particular regiments or corps. The dread of Vera Cruz, in unacclimated regiments, and in all persons, in the season of *romito*, is well known, and troops have refused obedience, when ordered to the place. To the fear of yellow fever is to be ascribed the fact that no greater exertions were made to relieve the town when besieged by Gen. Scott's Army.

A few notes have been made from the records of this hospital, having reference to the yellow fever of New Orleans in 1847 and 1848.

[1847.]

Third quarter;	Number of cases,	-	-	-	-	25
	“ deaths,	-	-	-	-	00
Fourth quarter;	“ cases,	-	-	-	-	13
	“ deaths,	-	-	-	-	8
Total;	“ cases,	-	-	-	-	38
	“ deaths,	-	-	-	-	8
Mortality per cent.	-	-	-	-	-	21,04

Many of these cases supervened on other diseases, the patients having been admitted into the hospital a considerable time previous to being attacked by yellow fevers. The first patient admitted for the disease, was a recruit belonging to the post, August 26th, recovered. He had never been to Mexico. The next case was in a man who had been in Dr. Luzenberg's Hospital, August 27th. The third and fourth cases were recruits of the 13th Infantry, from Mobile, admitted September 8th. They had not been in Mexico.

[1848.]

Third quarter;	Number of cases,	-	-	-	-	8
	“ deaths,	-	-	-	-	8
Fourth quarter:	“ cases,	-	-	-	-	3
	“ deaths,	-	-	-	-	3

The first case was admitted from on board ship, from a Mexican port, July 9th; died July 10th. The four next cases came to hospital, July 22d, from a ship in the river, from Mexico; the next from ship-board, August 2d. All these were in a desperate, or dying condition, when taken into hospital. The next case was that of Assistant Surgeon Newton, taken sick August 4th; died August 9th. Assistant Surgeon Sloan informs me, that Dr. Newton probably contracted the disease by walking to town in the hot sun, nor was the fever attended to sufficiently early or perseveringly. The last case was that of an hospital attendant, who had a severe frolic in the city; taken sick September 20th; died September 26th. These are all the cases in the quarter. The three cases in the fourth quarter of 1848, were Mexicans, belonging to the spy company from Gen. Scott's line of operations, which was encamped near the Barracks during the season. These men were idle, dissipated, and continually drinking in town, and it is surprising that more of them were not seized with the fever. The three men, the subjects of these cases, were no exception to the above remark. They were taken sick from the 1st to the 3d October; died from 3d to the 6th. Perhaps there were other cases in this and the preceding quarter, which might have been termed yellow fever, but were not registered as

such; this not being uncommon, where the symptoms are light, and the patient laboring under some chronic disease. But I have included every case found on the books.

If yellow fever be contagious, as asserted by some members of the profession, how did it happen that the cases from Mexico, admitted into an hospital filled with patients, nurses, &c., did not spread the disease? It appears to me that a contagious disease ought, in such circumstances, to become general; whereas, there were only eleven cases in the whole year; six of them introducing the contagion; in other words, the origin of the fever. The stewards, nurses, &c., universally escaped. Let us suppose six cases of small pox introduced into an hospital among stewards, nurses, and patients, none of whom had ever had small pox: is it probable that only five additional cases would occur?

Yours, respectfully,

J. B. PORTER,
Surgeon U. S. A.

LETTER FROM WM. M'CRAVEN, M. D.

HOUSTON, (Texas,) Feb. 15th, 1849.

Dr. E. D. Fenner, New Orleans:

DEAR SIR:—The occurrence of cholera, and other engagements, have prevented me from fulfilling the promise I made, to send you a sketch of yellow fever as it prevailed here last fall.

The preceeding summer was comparatively healthy. In August a few cases of mild remittent made their appearance; yielding readily to quinine in full doses, in the early stage of attack. On the 30th of August the first case of the epidemic came under my notice. It was under the care of another physician, and then the fifth or sixth day from the commencement of fever. It was a well marked case; hemorrhage ensued the next day; and black vomit and death the day following. He boarded in a house near the steamboat landing, where at the request of the same physician, I saw another case, which proved fatal about the sixth day. He informed me he had prescribed, about the same time, for another of the boarders, attacked in the same manner, but who had gone out of town, and was not then under his charge. He also died. In the course of a few days the landlord died; then his wife, and I think two or three of the children. The rest of the family were removed and the house evacuated. (It was in this same house, by the way, that cholera made its appearance about the 20th of December, and was then occupied by some German emigrants, just arrived from Europe.) During the first week in September, cases appeared in various and distant parts of the town, and without any apparent connection. In a few days more, the epidemic was fully developed, and general throughout the town. It continued till after frost, very few unacclimated persons escaping; and some who had previously had the disease suffered a second attack. Several of these I had attended in 1844. None of them were fatal. Our population had increased to about 5,000; and of this number, I should think, some 1,500 or 2,000 were attacked. The deaths amounted to something over a hundred; perhaps six or seven per cent. of the whole number of cases. The epidemic appeared in every variety of type, from the mildest to the most

malignant. The latter however was comparatively rare, the mild cases greatly predominating. With prompt attention and good nursing, I found the disease extremely manageable. I treated about three hundred cases, in all. To many of these I was called after the period when medicine can be of much avail. Yet only seven deaths occurred under my charge. Two of these were moribund, and died a few hours after I first saw them. One had been treated on the Thompsonian system, and did not remain regularly under my care; a fourth had been in charge of another physician till late in the second day. The other three I treated throughout; being one per cent. which I lost under regular treatment.

Many of the cases were so mild, that, but for the prevailing epidemic, they would not have been classed with it. Most of them, however, being unacclimated persons, and my experience corroborating that of others, that during epidemic yellow fever, but few fevers of any other type make their appearance, I have regarded them all, the mild, the grave, and the malignant, as originating in the same cause, and differing only in degree. I believe an opinion generally obtains, both in and out of the profession, that children, native to the soil, are not subject to yellow fever. Now I have seen much reason to dissent from this conclusion. Last season, during the epidemic, most of the children had fever. This was so common in the families where I visited, though in young subjects the attacks were very mild, that I became satisfied, it was not the impunity of native birth, but one of these light attacks, which secures their after exemption during the prevalence of epidemics.

I cannot bring my mind to the conclusion, that intermittent, remittent, and yellow fever, are identical in origin, and only differ in degree. Intermittents are often as malignant and fatal as yellow fever; so too, remittent. Mild cases of yellow fever are generally, less severe, and more evanescent, than of either of the others. There may be the same affinity between them, that exists between influenza and catarrh, or cholera and diarrhœa. Intermittent or remittent fever, may possibly constitute an element of yellow fever; but in my judgment, something else must be superadded; and then we have a new disease. What that something is; or whether it be simple, or compounded of two or more morbid elements, remains as yet, concealed among the unsolved mysteries of nature; still, I must admit, that in this place, for the last few years, remittents have been gradually approximating the yellow fever type. I saw some cases last fall, which I regarded as yellow fever, distinctly intermittent. One of the tertian type; the first paroxysm lasted twenty four hours, with the usual symptoms of the epidemic; it then terminated in profuse perspiration, which lasted nearly as long, with complete intermission of fever; on the third day it recurred with similar features, and terminated in the same manner, to recur no more.

More cases during this epidemic, assumed the remittent form, than I observed in 1844. This was a common feature in cases which lasted six or eight days—a very unusual occurrence however, in my cases, with the exception of one set, which occurred during the prevalence of a severe norther; nearly every one of which continued six, seven and eight days, with decided remissions toward the last. All recovered but one, who died on the sixth day.

There was in many cases, a complication with, what I supposed to be dengue. But I know very little of that strange disease. At some uncertain period of the fever, or during convalescence, the patient would be attacked with deep seated excruciating pains, very similar to those of rheumatism; sometimes in the fingers, or toes; sometimes in the arms or legs; in several cases they were general, from the hips down, while the other parts of the body were exempt; in several cases the tibia, or radius was the principal part complained of; in one, it was confined to the great toe; and in another, the pains were universal, from the neck to the feet; and so agonising, that the slightest motion was almost intolerable. They were very different from the pains which usually attend the first stage of yellow fever; more violent; more local; but occasionally like rheumatism, migrating from one point to another. Towards the close of the epidemic, I encountered a good many of these cases uncomplicated; most of them in persons, who had, during previous epidemics, had yellow fever, and some, in those convalescent from recent attacks. It then, usually came on with chilliness, attended with thirst, and the pains above described; but little fever followed; surface generally moist; and temperature normal. The pains continued from one to three days, and gradually subsided. The warm bath, quinine, and anodynes, were the only remedies I found available. No case proved fatal so far as I know. Was it dengue? If so, has it not some close affinity with yellow fever. I have seen no well written sketch of its history, and habitudes. But I believe it is confined to yellow fever localities, and prevails at the same season; often, as I have been informed, attacking the unacclimated, when the acclimated are suffering under the latter. Will not some of the intelligent physicians of New Orleans favor us with an article on this curious disease? I, for one, would feel much gratified. Hemorrhage and black vomit, were more frequent than I have heretofore witnessed.

On the subject of contagion, in yellow fever, I have only a few words to add. I am one of those, who do not think a man a fool who believes this doctrine; but I know of no rational grounds to suppose the disease was imported last August. There was a rumor, that two cases had arrived in town and stopped at the house near the landing, before alluded to, previous to the appearance of the epidemic. But these cases appear only to have been recollected long afterwards; and I can obtain no reliable evidence that they ever existed. I have therefore, come to the conclusion, that the disease was of domestic origin. The police of the city had been very much neglected during the summer. The gutters were obstructed, and the water in many places, allowed to stagnate till it disappeared by evaporation.

There was not much rain during the latter part of summer and fall; neither was it remarkably dry. This, I believe, embraces all I have to say concerning the history of the epidemic. I shall, before concluding, add a few words relative to its treatment. I think myself entitled to speak with some confidence on this subject, from the success which attended my mode of practice; and I assure you, I have simply stated facts, without any exaggeration. My principal means of combatting this formidable malady, were a small dose or two of castor oil; and from thirty, to fifty grains of quinine; with the addition of hot

mustard baths, mustard cataplasms and poultices, cold affusion of the head, and sponging other parts as indicated, anodynes pro re nata, and brandy or wine in the last stage. The nurse was minutely instructed, and warned of the importance of diligently attending to her duty. If called early, a hot mustard bath was ordered, at least for the feet and legs; a cataplasm to the epigastrium, and red pepper tea, or other hot drinks administered till the chillness had abated. As soon as the stomach was in a condition to bear it, four to six drachms of castor oil were given, on mint water, toddy, or some other agreeable drink, in as small bulk as possible; and it was seldom rejected. The object in view was to rid the stomach and bowels of undigested matters. The nurse was generally instructed not to allow more than three evacuations without administering something to check them. If the oil was tardy in its action, it was aided by enemas. As soon as the bowels were evacuated, and if called late, sooner, from ten to fifteen grains of quinine were given, diffused in coffee, or any other liquid. Coffee is the only thing I have ever tried, that will cover the bitter taste of quinine. This latter was repeated, at intervals of six or eight hours, till thirty or forty grains were taken. When the system was fully under its influence, it was omitted, and not usually recurred to. The after treatment varied according to circumstances; embracing but little medicine. During the early portion of the epidemic, I frequently administered a mild pill, usually containing a little mass hydrarg. But I was much better satisfied with the effects of oil; and discarded the pills entirely. Of those treated in this manner, and they must have numbered near two hundred, I lost but one case. As I wish to curtail this article as much as possible, I shall not trouble you with any further details on my course of treatment. But I wish to subjoin a few remarks on some other therapeutic agents, which have enjoyed an extensive favor with the profession. Venesection I did not think admissible in any case that came under my notice. I heard of only two or three cases where it was practiced; and they were all fatal. Purgatives were used by most of our physicians to a much greater extent than by myself; I think, the result was, that there was greater debility, and more protracted convalescence, in their cases than in mine. But the principal article to which I desire to call your attention, and that of the profession, is mercury. Mercurials have probably been more extensively employed in the treatment of yellow fever, than any other class of remedies. That they have been successfully employed in some epidemics, I cannot doubt. My opinion is, that in cases where the tone of the arterial system is high; and where the fibrine of the blood is in excess, mercury is serviceable. It lessens the quantity of fibrine and aids in reducing the system to the healthy standard. Hence, its acknowledged value in most inflammatory diseases. All our fevers have, for years, been gradually sinking from the inflammatory to the typhoid condition; and especially, is this remark applicable to yellow fever. Adynamia is the most prominent, as well as the most dangerous feature, which it presents. The blood is poor in fibrine; the tissues relaxed; and a strong hemorrhagic tendency exists. Is mercury the proper remedy for this condition? If I were a homœopathist, I should answer yes; for it induces that same, or a very similar condition;

consequently it must cure it. But I am not one of that school, who think that the more you weaken an article the stronger you make it; or that quinine will produce intermittent fever, and must therefore cure it. I believe then, that mercury, under such circumstances, increases the mischief, and acts rather as a poison, than a remedy. Because it was safe, perhaps indispensable, twenty years ago, it does not follow that it is so now. The routine practitioner may dissent from this conclusion; but the man of science, reflection, and close observation, will at once admit its truth. Disease is a condition, and not an entity. The same cause operating upon the economy, under different circumstances, will induce different trains of perverted physiological actions, which require different means to combat them. The more I have observed the effects of mercury in yellow fever, the more I am confirmed in my prejudices against its use. In most cases that have come under my notice, where it was freely given, the patient became deeply jaundiced, very feeble, and convalesced slowly, if at all.

A few observations on quinine will conclude my remarks. I believe it is used by all our physicians; but they differ materially in the mode of administration. Some give it freely from beginning to end. Some in small, frequently repeated doses, after the fever has subsided; some combine it with purgatives, capsicum, &c., and give it throughout. I think it only adapted to the early stage, before adynamia predominates. I find the same rule apply in remittents. I seldom derive much benefit from quinine, after the first two or three days; but on the first, or second, they can be cut short without any other medicine. I have never derived benefit from the administration of quinine in great depression and irritability of the nervous system; and especially in the typhoid stage of malignant fevers. In almost any other condition, I believe it may be administered with safety.

WM. McCRAVEN.

LETTER FROM P. B. M'KELVEY, M. D.

ST. FRANCISVILLE, (La.) March 20th, 1849.

To E. D. Fenner, M. D., New Orleans:

DEAR SIR:—I have delayed complying with my promise of writing to you respecting the visits, &c., of the "yellow fever" at this place, from the fact of having mislaid my notes and memoranda, and cannot possibly imagine what I have done with them. I have endeavored to obtain concurrent testimony and recollections, but so far have not succeeded in procuring any of *reliability*. I am fearful that my own reminiscences will scarcely be of any use, as they want data which are essential to render such information available.

I recollect, but one case of yellow fever before the autumn of 1839, which was brought here from the city and died: no other cases occurred. In 1839, the fever prevailed to an alarming extent. How it originated, I cannot say, but the *first* recognised case was a man by the name of "Banta," a resident of the place. This epidemic was confined to *Bayou Sara*, No case occurred *on the hill* or in St. Francisville, (three-fourths of a mile distant from the river bank.) One case, however, died in St. Francisville, having been brought from Bayou Sara.

From that period until 1843, I do not remember having seen or heard of a case. In 1843, the epidemic seemed to be confined to this village (St Francisville.) No case occurred under the hill or at Bayou Sara that I knew of. A remarkable peculiarity attended this epidemic. Although there were many persons residing in the village, but partially acclimated, no individual was attacked or died, but those who were *creoles* of the parish or state, or had resided here for many years. I was not able at that time to trace the origin beyond the precincts of the village. The same year, they had the fever in Woodville, we had four cases here, originating in that place; three recovered; one died; had the black vomit, when he arrived and lived but a few hours. No other cases occurred.

1846.—Recollect one case brought from the city early in the season, that is, he was taken with the fever some week or ten days after his arrival; died. Some five or six weeks subsequent, an epidemic of a *very mild type* broke out simultaneously here and at the Bayou; only two bad cases; one died. *Neither had been in any way exposed to any, beyond local causes.*

1848.—One case originated here. Had not been out of the village or to the city for some months; unacclimated; *died*: no other cases. During the period embraced in the above remarks, the intercourse between this place and the river, and between it and the city, was free and uninterrupted at all times. I regret, as I before observed, that my communication will be likely to prove of so little service to you, as I dare say it is a matter of some importance. But if I ever lay hands on the lost notes, I will be much pleased to give you more ample and precise information.

With sentiments of respect and esteem,

I remain, your obd't and humble serv't.

P. B. McKELVEY.

LETTER FROM WM. A. BOOTH, M. D.

THIBODAU, (La.,) January 9th, 1847.

To E. D. Fenner, M. D., New Orleans:

DEAR SIR:—Several cases resembling yellow fever, originated in our village during the past summer. Not a single one of the persons thus affected had visited Orleans for several weeks previous to the attack.

The only person who contracted the disease in the city, arrived here sick, and died in a few days. Not one of his attendants or visitors had it subsequently.

The cases similar to yellow fever, occurred at various intervals, from the 20th of September to the middle of October, in persons who had little or no communication with each other.

The following is the history of the case I promised to send you:

Mrs. M. aged 40 or 45, had been unwell eight or ten days, but had so far recovered, that upon her servant and child being taken sick, she got up to nurse them. This was on the 10th of October. On the 11th, I called to see the servant and child, and found Mrs. M. in bed, with high fever, headache, &c. As her bowels were somewhat constipated, I prescribed three comp. c. pillul.

October 12th.—The pills have operated tolerably well; her pulse is 130, and deficient in strength; her extremities and skin are warm. She has a troublesome cough; the sputa are very viscid. Her breathing, when asleep or quiet, is natural, but when talking, or in the least excited, it is unusually short, rapid and laborious. A deep inspiration produces but little uneasiness. She thinks she feels some pain between the mammae. There is great tenderness, and a very disagreeable sense of oppression in the pit of the stomach. She retches, but does not vomit. The retching is supposed to be occasioned by the viscid sputa collecting in the throat.

Treatment.—Cup her freely over the lungs and stomach; repeat this operation at night; afterwards apply a large blister over the stomach, and direct her to take a pill containing one-eighth of a grain of morphia, three grs. calomel, and one of ipecac., every two hours, until she has taken three doses, unless she vomits, and ten grs. quinine every three hours. Took the medicine without vomiting it.

Oct. 13th.—About 4 o'clock in the morning, was called to her. She had *black vomit*. She vomits at intervals of one, two or three hours. The matter vomited is a thick, ropy slime, with which is mixed an abundance of particles resembling snuff, or coffee grounds; and amounts at each time to from one to three or four table spoonfuls. During the intervals, she is quite composed, and suffers very little, being generally asleep. She takes morphia and calomel in pills; morphia in solution, and sometimes toddy, to allay the vomiting; ice cannot be procured.

Oct. 14th.—About 3 o'clock, A. M., twenty-four hours from the time it began, the vomiting ceased. Her mind, which has been perfectly clear, begins now to wander. She knows her friends, but cannot talk connectedly. Her pulse begins to sink, rising occasionally under the influence of brandy by the mouth, and stimulating injections. These conditions of mind and pulse became gradually more perceptible, until 9 o'clock, P. M., at which time she died.

This lady's complexion was very sallow when she was healthy. It became more so during her illness. Eighteen hours after death, the corpse was as yellow as a pumpkin. Her tongue throughout the attack was somewhat more turred, rather darker, and slightly redder than natural. About the time the vomit commenced, she had a dark, bilious consistent evacuation. Since that, she has neither urinated, nor had another evacuation. Being in the habit of attending cases of yellow fever, you will doubtless see nothing unusual in this one. Its origin is the only peculiarity. Mrs. M. had moved to this place only six or eight months previous to her attack; was remarkably domestic and industrious, visited very few persons, and had very few visitors. Neither those she visited, nor those who visited her, had any thing like yellow fever during the season. There was no case in town, at the time, nor has there been one since. She neither saw the gentleman who contracted the fever in the city, nor any of those who had attacks resembling it. Owing to her habits and her health, she had not been off her lot for at least ten days before the beginning of her last sickness. Mrs. M. had four in family, two servants and two children. The youngest child, five or six years old, was taken sick with a mild attack of intermittent fever,

and the negro woman with an obstinate and irregular one of the same disease, a day or so before Mrs. M. The eldest child, (a young girl of 14,) was attacked on the evening of the 11th, with bilious remittent fever of a high grade, and on the morning of the same day, Mrs. M. was seized with yellow fever.

It does appear to me that this *one distinctly isolated* case, proves a great deal. At least, it satisfies me of three things:

1st. That yellow fever is not contagious. Mrs. M. "caught it" from no one, and no one "caught it" from her.

2d. That it is nothing more than a peculiar and aggravated form of bilious remittent fever.

3d. That it *may* originate wherever there is much heat, much moisture, much filth, and a crowd of animals. Mrs. M. lived on a small square, which is crowded with houses, with their backs towards each other. The back yards being occupied by a stable, several privies, and the debris of wood piles. As these yards are held mostly in common, it is every body's business to keep them clean, and, consequently, the filth is permitted to accumulate. They were very filthy when Mrs. M. was attacked.

Having done what you requested, and a little more, I will stop. Some few cases of Asiatic, or epidemic cholera, have been reported as occurring in this vicinity. I shall be pleased to hear from, and want to see you,

Yours very respectfully,

WM. A. BOOTH.

II.—ON THE NATURE AND TREATMENT *of the reigning Epidemic in Attakapas, (March, 1849.)* By J. B. PIGNE, *late House Physician to the Hospitals of Paris, etc., and Lecturer on Pathological Anatomy at the Ecole Pratique.* Translated from the French, by E. S., D. M. P——, Plaquemine, La.

It were impossible for me, at present, to give a complete history of the disease now existing in the Attakapas, but I trust that the following short description, which a few brief moments of leisure have enabled me to offer to my medical brethren, will be sufficiently clear to enable them to understand my views on the subject.

Copious diarrhœa, abdominal pains, vomiting, cramps, sweating, partial or universal, diminution of heat; such are the phenomena, observed. To determine the nature and seat of the disease it is indispensable to examine carefully each of them.

Diarrhœa.—This is without doubt, the first symptom that occupies the attention of the patient, but if inquired into with care, it will be found that in the majority of cases, the looseness of the bowels has been preceded by constipation, and that in some cases, this constipation was accompanied by pain; some patients ask for advice during this period, so strong, sharp and persisting are these pains. They are gene-

rally seated above the umbilicus, slightly to the left, at least in the majority of cases; sometimes I have found them on the right side. A drastic purgative is generally sufficient to remove them, yet in two cases, I was compelled to administer it twice, the first having been wholly without effect. In some cases, these pains persist with intensity for 24 hours, in others, they precede the diarrhœa, but for a few minutes, whilst in some, they only show themselves with force together with the first evacuation. During this period the pulse is full and regular.

After the abdominal pains, and sometimes accompanying them, diarrhœa supervenes, the nature of which varies according to the actual state of the digestive tube. If it occur in the morning whilst the patient is fasting, the evacuation is generally dark colored, with a slight greenish or yellowish tinge. It is a mixture of fecal matter, of bile, mucous secretions, and serum. If in the day time, after the patient has eaten, in addition to the above, we find undigested food. In the second stool there is a diminution of fecal matter, which gradually disappears in each succeeding passage. In one word, as the stools increase in number, the fecal matter diminishes; the evacuation becomes more watery, more bilious, and after 7 or 8 passages, the bile generally disappears, and the discharges consist merely of mucus, serum and albuminous flakes in more or less abundance. When, at the outbreak of the disease, the intestinal canal contains little or no fecal matter, the first stools are excessively liquid consisting of bile, serum and abundance of albuminous matter. Finally, if the disease is allowed to run its course, or if we fail to arrest it, the exudations from the bowels become more and more watery; the mucous secretions disappear, to be replaced by serous discharges. After the lapse of some time, the evacuations become red without acquiring any consistency, from an admixture of blood with the mucous discharges. The pulse becomes weaker, and towards the end only, becomes intermittent.

Vomiting.—In some cases this symptom shows itself at the commencement of the disease; and this occurs in those cases where the stomach still contains food, and then the matter vomited consists of the food contained in the stomach, with more or less bile. In some cases, however, the stomach is empty, and the patient merely vomits up bile, mixed with mucus and water. This vomiting, which accompanies the outbreak of the disease, is of little importance, and generally ceases spontaneously, whether combatted or not. But, on the other hand, when at a more advanced period of the disease, vomiting supervenes, consisting of bile mixed with abundance of serum, sometimes fecal matter, and sometimes blood, although this symptom does not appear to me to offer, *per se*, extreme danger, yet it shows that the disease is making rapid progress. Many patients die without vomiting, therefore this symptom is not essential. In the majority of cases, it is merely sympathetic; sometimes, however, it depends on the implication of the stomach, in the disease of the intestinal canal.

Cramps.—Cramps are always preceded by lassitude in the extremities. As yet, I have not had an opportunity of witnessing them at the commencement of the disease. It is true that many patients complain, at the outbreak of the disease, of *cramps in the belly and extremities*, but when our inquiries are properly directed, we find that these cramps

consist merely of those abdominal pains I have already mentioned, and flying pains in the limbs. True cramps, that is to say, the pains produced by spasmodic contraction of the muscles, are always secondary phenomena, and never show themselves, except after a certain number of stools, especially of serous stools in large quantities. Generally, these cramps are preceded by vomiting. The inferior extremities, and especially the calves of the legs, are their principal seat; in some cases, however, they are seen in the upper extremities. I am not aware of their having been noticed in the muscles of the trunk, of the neck or face. We occasionally find patients who complain of *cramps in the back*, but these are not true muscular pains; they are seated more deeply, and are merely those *sympathetic dorsal pains* mentioned by Mr. Cruveillier, as existing in a great number of acute diseases of the abdominal and thoracic cavities, especially in pleurisy and pericarditis, with effusion. Rarely patients complain of that peculiar painful band, which was seen in the majority of cases of cholera in 1832 and 1833.

These cramps are not essential to the disease. Many patients die without having suffered from them. They evidently depend on the predominance of the nervous system, produced by the depression of the circulating system. (*Predominance du systéme nerveux due a un affaiblissement du systéme circulatoire.*) Cramps are always a bad sign, although they do not denote a certain fatal termination. A considerable number of patients suffered from them, yet recovered; but in these cases, convalescence was tedious. They are rarely permanent, and often offer considerable remissions. I have found that frictions, either dry or moist, with laudanum, camphorated spirits of wine, etc., increased, instead of diminishing their frequency.

Sweats.—This cutaneous exudation does not show itself at the commencement of the disease. They should be divided into two kinds, *hot sweats* and *cold sweats*. The first generally appear, when, by an appropriate treatment, the diarrhœa begins to diminish. They cannot be considered critical, and are generally a favorable sign, unless of too long continuance, for in that case, they weaken the patient, and are followed by excessive prostration, accompanied by vomiting and cramps, to change soon into cold sweats. During the existence of these hot sweats, and even a short time before their appearance, the pulse rises, becomes full and slightly accelerated. They are rarely accompanied by cephalalgia. They last from two to five hours, accompanied by a diminution in the number of stools; many patients have not a single evacuation during their existence, but generally as they decrease, the patients have a stool which is of a better nature than previous to the appearance of the cutaneous exudation.

Cold sweats.—Are generally an unfavorable sign; they usually accompany cramps in the legs and a *diminution in the heat* of the body, at first limited to the feet and hands, but soon rapidly extending over the whole body. We frequently see also at the same time, serous or sanguinolent vomitings, and stools of the same nature. This cold perspiration shows itself in large drops on the surface of the skin, principally on the forehead and face; at first serous, it soon becomes viscous. Sometimes it is unaccompanied by any remarkable wasting and alteration of the face, and then it lasts but for a short time and is of little importance,

it being easy to modify and replace it by a copious warm perspiration. But on the other hand, when together with cold sweats, we find wasting of the face, sinking of the eyes, and depression of the *alæ nasi*, the lips become fuliginous and the disease is most usually mortal, although some patients may yet rally and recover.

During this period of the disease, the abdomen is generally painful on pressure, and slightly distended; the stools become less frequent, vomiting persists; the pulse is small, quick, thready, in a word abdominal, and, what is worthy of remark, the patient merely complains of excessive weakness, and most generally asks for food. The duration of the cold sweats varies from half an hour to three, four or more; they may be considered as the most serious signs of the disease.

Such are the most striking points of this disease. I need not mention others that are wholly exceptional, such as the presence of *ascarides lumbricoides* in the intestinal canal; palpitations; oppressions, etc., which are frequently seen; they are wholly foreign to the disease, and dependant on individuality.

From the preceding remarks, it is easy to perceive that the disease which now occupies us, is a serous enteritis (*enterite sereuse*.) that is to say, enteritis characterised by a serous exudation similar to that which we find in pleurisy, pericarditis, etc., with effusion. All the other substances, we find in the evacuations, are merely the contents of the digestive tube which gradually disappear. Ought we to consider the bile, which we find mixed with the evacuations as a morbid secretion? I do not think so. In many cases, the secretion of bile is not increased, but it continues as in the healthy state. It is true that in certain cases, we find the tongue greenish or yellow; but this seems to me to be merely *sympathetic*, and exactly similar to what we meet with in many cases of ordinary enteritis, and especially in the gastric form. But this is not an idiopathic affection of the liver, as we would perhaps be led to believe from the appearance of the tongue, and the nature of the vomiting and stools.

Most frequently, this "serous enteritis" occupies the small intestines; sometimes it extends to the stomach, and in other cases, but more rarely, to the transverse arch of the colon. The pains and constipation that precede the disease belong to the various kinds of enterites; the bilious evacuations are found in the majority of cases of acute enteritis that are rapid in their march: the rapid failing in strength, the wandering pains in the legs, and even the cramps, are seen in many of them. The albuminous flakes, which we find in such abundance, and which give their white appearance to the stools, exist in nearly all abnormal serous secretions; and even the blood, which is mixed with them in some cases, is merely a sanguineous exudation, which takes place at the termination of many hyper-secretions of serum. Certainly, we have here sufficient to justify the denomination of serous enteritis, which I propose to substitute in the place of cholera, a name which seems to me to be unjustifiable. Most truly, we meet with cases of this disease as rapidly fatal, as in cholera; but in them we do not meet with the same simultaneous existence of symptoms as in cholera: here they succeed each other with a certain regularity not to be found in cholera. The stage of

cyanosis which accompanies the cold stage of cholera, is generally seen without perspirations, and the cold is permanent until a crisis comes on, which definitely puts an end to it, and replaces it by a gentle warmth. In serous enteritis, the cold stage is accompanied by sweats, and offers frequent alternations, appearing and disappearing a certain number of times. In cholera, the lips are fuliginous, and the nostrils present that peculiar appearance denominated by French pathologists "*narines pulverulentes*." As yet I have not seen their appearances in serous enteritis. Finally, in cholera there is suppression of urine, whilst in the disease now under consideration, the secretion continues.

Treatment.—The treatment, which I am in the habit of employing, and which has always succeeded most admirably in every case where the nervous symptoms do not predominate, and even often in this stage of the disease, is as follows: If it were necessary, I could invoke the testimony of seven or eight proprietors of large plantations, amongst whose slaves I have had numerous cases; and also, some of my medical brethren, who have adopted the same mode of treatment, at least the fundamental part of it, could bear witness to its efficacy:

R—Red Oak bark, }
 Peruvian bark, } of each about 10 lbs.
 Water about 30 lbs.

Boil for half an hour, strain and keep for use.

The red oak is preferable, and the bark of both should be taken in preference from the trunk near the roots, and should be used fresh.

The above decoction forms the basis of my treatment, but the manner of administering it is of importance. The following is the plan I recommend.

As soon as I am called to a person suffering from this disease, I begin by giving a small injection of the cop. decoction, and administering half a tumbler by the mouth. In general, this first injection and dose are retained but a few minutes, as soon as they are rejected, I repeat the dose. This second dose is usually retained a quarter of an hour, and I continue repeating it three, four, or even five times, until the vomiting and purging cease. We generally find that each successive dose remains longer on the stomach, and in two instances only was I compelled to administer as many as six; often a single dose is sufficient.

By the above treatment the vomiting, if it had existed, is first arrested, and then the diarrhœa. Some hours after, the patient is often wholly cured; in a certain number of cases, the skin becomes hot and moist. If I find then that the pulse is quick, and especially if it is full, I bleed, even during the perspiration. Twenty-four hours after the arrest of the purging I give a pretty strong dose of some drastic purgative. I prefer the purgative of *leroz* (one table-spoonful and a half) and in addition, I make the patient drink every half hour, half a tumbler of the decoction.

Once the looseness of the bowels arrested, I act according to circumstances; according to the indications presented; bleeding, baths, sedative draughts, etc.

When not called upon till the cold stage has supervened, I give as above the oak decoction, but to produce reaction, heat of the skin and warm perspiration, administer every half hour a table-spoonful of the following mixture:

R.—Laudanum,	3ii.
Spts. of ammonia,	3iv.
Sugar,	3j.
Water,	3iij. M.

At the same time the patient is surrounded with hot bricks. (It is essential notwithstanding the cramps, not to use friction: the heat and sweating are more certain to remove them than friction,) and when reaction comes on, I generally bleed, and act according to indications.

Such, Sir, are the facts which I have observed; I regret that I have not time to add cases, taken at the bedside.

III.—CHOREA, with suppression of the Menses, treated successfully by Ammoniated Copper and Extract. Belladonna. By THOMAS E. EVANS, M. D.

Miss. J.—Ætat. 18.—Had for eighteen months previous to date, June 29th 1846, slight symptoms of chorea, which gradually increased until March 1846. She was then placed under the professional care of Dr. J. W. of this place. *Treatment*.—Bleeding, blisters to spine, mercurial course &c., steadily perserved in, until the above date, June 29th, at which time the case was abandoned by the above gentleman as hopeless, and her death declared certain.

June 29th.—Visited Miss J. for first time. Symptoms.—Countenance pale, anxious, sunken; breathing with considerable difficulty; spasms violent and constant, extending over the whole body, so that two persons had to be constantly employed to keep her on the bed; muscles of throat and tongue rigid, so much so, that speech and deglutition were both in a great measure suspended; bowels irregular; tongue slightly furred; pulse small and irregular, varying from 130 to 150; has not menstruated for twelve months; spinal column slightly tender and a little curved, probable by the constant spasms; usual period of catamenia 8th to 12th of the month,

R.—Ammon. cupri, gr. ss.

Ex. Gentian. grs. iij. M. ℞. pil. ter die sumenda.

Applicetur.—Emplast. hydrarg. ant tart. ad spina. R.—Aloes; sapo Castil. aa. M. ℞. divid. in pil. grs. iv. singul. quatuor pro re nata, nocte sumenda.

June 30th.—Less rigidity in the muscles of throat and tongue; has swallowed with more facility; can articulate indistinctly; bowels acted twice; skin moist. Slept some last night; spasms still continuous, but is more cheerful; prescription continued.

July 4th.—Improving steadily; can swallow and speak more plainly; complains of emplast. R.—Ammon. cupri, gr. 3/4; ex. gent. grs. 5; ter die.

July 8th.—Better. Omit capri sulph. R.—Ext. belladonna, grs. iij, *ter die*. Warm mustard pediluvium at night.

July 9th.—As yesterday.

July 10th.—Slight menstrual discharge and very offensive; has produced a good effect on the mind. Rep. ext. belladonna, *ut here*.

July 11th.—Improving rapidly; the spasms which have been constantly becoming milder, are now scarcely perceptible; can walk with a steady gait and has tried to knit. Catamenia present.

R.—Ammon. cupri, gr. i;

Ex. gentianæ, grs. iij; *ter die*.

July 12th to 15th.—Catamenia still flows moderately and has assumed a healthy character.

July 20th.—Attendance discontinued; the pills of ammon. cupri to be continued for three weeks more, and the belladonna taken on the 8th 9th and 10th of next month.

At the time of penning this paper, Miss J. yet unmarried, is and has been ever since July 20th and 24th, in fine health.

I have allowed this length of time to elapse, nearly three years, in order to be fully assured that the cure was complete; this is the third case I have treated successfully with cupri ammon. and belladonna, after all other modes had failed. One at Southampton in England, in 1832; when under the instruction of W. S. Oak, M. D. of the Royal College of Physicians; one in Tuscaloosa, Ala., and the one sent you. I make no comments.

My rule for the seventeen years of my professional life, has been to follow that course which experience teaches me is most successful. I have frequently given belladonna in suppressed catamenia after other remedies had proved abortive, and with pleasing success.

Decatur, Newton County, Ala. *May*, 1849.

III.—REMARKS *on Iritis, with Cases illustrating the Treatment of that Affection.* By THOMAS PENISTON, M. D., of New Orleans.

MR. EDITOR:—The following observations were selected from a number of cases of iritis in private practice. They are designed to show the necessity of a correct diagnosis, and a consequent more rational mode of treatment among us, of the affections of the eye.

I hope, sir, that the importance of the disease they are intended to illustrate, will be a sufficient excuse for the hurried and very imperfect manner in which they are presented.

If thought worthy, I will continue the subject in a future number, with the other varieties of Iritis.

I am, dear sir.

Case 1.—Rheumatic Iritis.—An Italian, aged 40, of good constitution, dark hair and eyes, was suddenly taken, after having slept a night in wet clothes, with severe pains in the limbs and right eye. Saw him on the morning of the 12th June, 1848, the day after the invasion of the disease. Complaints of intense pain in the globe of the

right eye, and, indeed, throughout that side of the head. On being brought to the window, for the purpose of examining the organ, the patient instinctively throws up the hand to protect it from the light. The conjunctiva appears generally swollen and injected. The cornea surrounded by a well marked zone of deep seated straight vessels, which appear to radiate as from a centre, gradually disappearing among those of the conjunctiva. The cornea has a dull, leaden appearance, and has lost the polish, which gives the brilliant life-like appearance to that membrane; the iris is sluggish and is much paler than the other; the pupillary opening is one half smaller than the other eye.

Prescription.—Venesection sixteen ounces, to be repeated at night if pains continue; vinous tincture of colchicum, thirty drops three times a day; lotions of warm infusion of belladonna leaves applied to the eye through the day.

Twelfth.—Morning; has passed a bad night; pain in the eye continues, though much less in his limbs; appearance of the eye about as yesterday, with the exception of a slight epoyon in the anterior chamber. The blood drawn by the two bleedings is highly buffed; serum is abundant and transparent.

Prescription.—Venesection twelve ounces, to be followed at night by an application of twelve leeches to the temple of the affected side, if the patient continues to complain of the pain.

Twelfth.—Feels some better this morning; fainted yesterday before the desired quantity of blood had been obtained; the leeches were applied and bled freely. The patient opens the eye more readily; the cornea is covered with several patches of nebulae occasioned by the deposition of lymph between its layers; the iris is almost insensible to the impression of light; the hypopion remains about the same.

Prescription.—Suspend colchicum; six grains of calomel and one grain of opium, to be taken through the day; continue lotions of belladonna. This treatment was continued four days before the gums were touched; as soon as the constitutional effects of the mercury were produced, the cornea regained its transparency; the epopyon was rapidly absorbed, and in ten days after, the patient returned to his occupation with a slight irregularity of the pupil only, occasioned by the presence of false membranes connecting it with the capsule of the crystalline.

Case 2.—A young man from the country, age 26, dark hair and eyes, nervous temperament, health generally good, consulted me on the 20th November last, for an affection of the right eye, which had given him much pain and anxiety within the last year. Says that the first attack came on in the month of December, 1847, after undue exposure on horseback, in cold, windy weather. It consisted in a severe darting pain at first, occupying the whole of the right side of the head and face, and which eventually fixed itself in the right eye. It was accompanied with profuse flow of tears, and great pain on opening the eye. The disease got better in a few days, under the treatment employed by a respectable physician in the neighborhood; but the eye has never been entirely well or free from pain since. He subsequently consulted another physician, who advised the use of purgatives, and an eye wash of nitrate of silver; but with no better success.

The palpebral conjunctiva is but slightly inflamed. The red band

surrounding the cornea is well marked, and is evidently formed by the vessels of the sclerotic coat. A few enlarged vessels are observable on the conjunctiva, but they disappeared on approaching the cornea. The whole of the cornea is filled with small dots, or points of lymph, which appear interposed between its layers. The pupil is deformed. The iris is of a dirty brown, and projects forward into the anterior chamber; its pupillary edge is thickened. Several small patches of semi-transparent lymph occupy its anterior surface. The patient can barely distinguish between light and darkness, and is tormented with a constant deep seated pain in the globe of the eye.

Prescription.—Three pills of two grains of calomel, and a fourth of a grain of extract of opium each, to be taken in the course of the day; warm lotions of belladonna leaves, constantly applied to exterior of eye.

Twenty-fifth.—The violent pains have measureably ceased. The cornea is recovering its transparency; no perceptible change in the iris; patient thinks there is a slight improvement of vision; the treatment was continued until the constitutional effects of the mercury were obtained; as soon as they became manifest, the eye gradually recovered; pupil, however, remained permanently contracted, with a very imperfect degree of vision.

I again saw this patient about six months after; vision had become entirely extinct, from the formation of a capsular cataract entirely filling the small opening in the pupil, and even projecting into the anterior chamber. This was no doubt owing to the inflammation having extended to that membrane.

Case 3.—A young man, aged twenty, of good constitution, dark hair and eyes, in good health, was taken sick, without apparent cause, with pains in the knees, accompanied with swelling and redness. He was bled twice, took several tepid baths, and was so far relieved as to be able to return to his occupation at the end of eight days.

On the 15th December, 1818, three weeks after the above attack, he awoke in the morning with a dull, deep seated pain in the globe of the right eye, accompanied with heat and redness. The medical attendant of the family, being called in, advised the application of a dozen leeches to the temple of inflamed eye, and a wash of nitrate of silver. The eye continuing to get worse, I was requested to see him in consultation, on the 18th December, three days after the invasion of the disease. The organ then presented the following appearance: intense conjunctival inflammation. The muscular zone, already described in a former case, is beautifully marked. The cornea is dull and hazy; the iris, sluggish and of a yellowish tinge; pupil regular, but much smaller than in the opposite eye. Light produces pain, though a moderate degree can yet be borne. The deep seated, dull pain in the globe of the eye and forehead, precludes the possibility of rest; profuse flow of tears.

Treatment.—The family objecting to the use of mercury, twelve ounces of blood were ordered to be taken in the morning, and as much again in the evening, if pains continued. Thirty drops of the tinct. of colchicum, three times a day, and lotions of an infusion of belladonna applied to the exterior of the eye.

Dec. 19.—About twenty ounces of blood only, were taken, as the patient felt weak and faintish. The colchicum purged him freely; the

situation of the eye remains about the same. Patient thinks that the pains are not quite so intense.

Prescription.—Twelve ounces of blood to be taken in the morning, twelve leeches to temple of inflamed eye; in the evening, continue tincture of colchicum, to which was added a few drops of laudanum, to prevent its purgative effect. Continue lotions.

Dec. 20th.—Twelve ounces of blood were taken; the coagulum is firm, and is surmounted by a fatty buff, at least a fourth of an inch in thickness. The pain continues about the same; the iris appears thickened and projects forward into the anterior chamber. Patient complains of dimness of sight. I again proposed the use of mercury, as the only remedy, in my opinion, capable of arresting the disease; the family still objecting, I at once withdrew, leaving the patient to his former attendant.

January 6th.—I received a note from the family, desiring my presence, and acquainting me of their willingness to submit to any treatment I might think proper to adopt. The right eye then presented the following appearance: vessels of the conjunctiva much enlarged, the whole of the membrane is swollen and presents a thick *bourlet* around the edge of the cornea; semi-opacity of the cornea throughout, but more particularly in its inferior half. The anterior chamber is more than half filled with bloody lymph; the iris, as much as can be seen of it, has lost its brilliancy, and is of a dirty brown color. Patient can scarcely distinguish between light and darkness.

The opposite eye is also injected, with slight contraction of the iris and sensibility to light.

Prescription.—Calomel, six grains; extract of opium, one grain; to be made into three pills, and taken in the course of the day. This was continued until the gums were slightly touched; after which, the inflammation gradually subsided; the absorption of the epopyon took place rapidly, and had entirely disappeared at the end of six days from the administration of the first dose of calomel. The iris, however, did not recover its color or activity, until several months. With the exception of a slight irregularity of the right pupil, owing to the formation of false membranes, both eyes are now perfectly well.

Part Second.

REVIEWS AND NOTICES OF NEW WORKS.

I.—*On the Cryptogamous Origin of Malarious and Epidemic Fevers.* By J. K. MITCHELL, A. M., M. D., Professor of Practical Medicine in the Jefferson Medical College of Philadelphia. Philad. Lea & Blanchard, 1849.

This little volume embraces a series of lectures, delivered by the author, to the medical class of the Jefferson Medical College, during the sessions, 1846–7. The book opens with a disquisition on the “theories of malaria,” in which he attempts to disprove the truth of the various speculations, put forth from time to time, as to the existence of this invisible, but noxious agent. After a partial review of the opinions of different authors, as to the influence of malaria or marsh miasmata, in the production of fevers and other diseases, Professor Mitchell proceeds to remark, “that the most forcible argument against the vegeto-ærial theory, consists in the extraordinary exemption from malarious diseases of places which were it true, could not escape a severe infliction.” He continues:—“It is the more forcible, because the theory is founded mainly upon the concurrence of such diseases with heat, moisture and vegetation. If then, it can be shown that the alleged conditions exist in the most perfect state, *in very many places*, without morbid results, the universality of the coincidence can no longer be brought to sustain the opinion.”

Again, says Prof. Mitchell, if *many places* can be cited, where these supposed elements are not at work, which are nevertheless noted for their insalubrity, the opinion becomes even less tenable. It is still further weakened, he continues, by the fact, often observed, that under precisely the same apparent circumstances, healthy places become unhealthy, and sickly places, salubrious. “The marsh—the heat; the moisture and the vegetation remaining apparently the same; the health of a region may vary from one extreme to another.”

Prof. Mitchell could not have chosen a more opportune moment, and a better audience, before whom to deliver the above sentiments, than a class of inexperienced and partial students. Do not the same objections hold good against his, as against the theory of the malarious origin of fevers and epidemics, which he attempts to combat? But it remains to be seen, in what manner, and with what show of reason, Dr. Mitchell constructs the cryptogamic origin of fevers, and other epidemics. Our

author, in the exordium, with which he introduces to an admiring class, the origin of his animalcular theory, tells them that, standing at St. George's, Delaware, more than twenty years ago, upon the bottom of what had been, a short time before, a mill dam, he found around him the undecayed stumps of trees, which had been, for one hundred and seventy years, submerged in fresh water. Two or three years thereafter, he again visited the same spot, and saw that these stumps, no longer wet, but damp, had been entirely disintegrated by the dry rot, and that they crumbled in the handling. In the handful of dust which he picked up, he found innumerable spores of what he supposed to be *polyporus destructor*, and *merulius vastator*, cryptogamous plants, whose active existence had been bought at the expense of the old stump. In a moment, Prof. M. conceived that, perhaps, the miasma, so much dreaded in that place, might be *directly or indirectly*, the product of these urgers-on of a more rapid decomposition. The above is the language of the author, and the reader cannot fail to discover something in the origin of the Professor's discovery, not unlike that in the case of the author of the principia and the apple,—“*sic componere parva cum magna*”; but how far the analogy may hold good in explaining the phenomena of nature, remains to be determined. We are told, by the ingenious author, (who by the bye, is not fully satisfied with his own theory) to receive his “*ex parte*” observations and statements with caution, not adopt his theory of the cause of epidemics, because it is promulgated *ex cathedra*. This is candid—yea, manly, and just such language as we were prepared to expect from the distinguished professor, when attempting to supplant with a new, an old and generally admitted, theory, before a class of speculative and ardent young men.

Dr. Mitchell then enters into a somewhat detailed history of the different species of *lichens*, the *algæ* and the *fungi*, all these being cryptogamous plants, and closely allied to each other. Indeed some cryptogamists assert, that the location, rather than the structure of these plants, creates the only true distinction, since the *lichens* abound in dry and scanty soils—the *algæ* are found in both fresh and salt, whilst the *fungi* are peculiar to damp and unsound, or loaded atmospheres, feeding on organised matter, about to die. It has been demonstrated by the microscope, that the elementary cells of the *confervæ* especially, bear a striking resemblance, are indeed analogous to the primary cells of animal organisation. Thus we perceive, according to this idea, that when we go back to the primitive structure of both vegetable and animal structures, they become almost identical in form, composition, and in all the essentials of vital forms. The question may be asked, are the two convertible, and if not, why not? These interrogations must involve speculations too subtle for the practical character of this paper. The lowest of the vegetable germs, says Prof. M., to wit: the *fungi*, are, in the opinion of some naturalists, equally distinct from both plants and animals; mere fortuitous developments of vegeto-animal matter, called into varied action by special conditions, or by combinations of heat, light and moisture, are capable of existing, and of being propagated, under circumstances apparently the most contrasted. The *fungi* are the most highly animalised; they exhale, as animals, carbonic acid, and absorb vital air, or oxygen gas; they are likewise similar in their chem-

ical composition; they are numerous and widely diffused in nature, and possess poisonous properties; abounding mostly, however, in dark places and heavy atmospheres. The author charges upon the fungi, the *principal* cause of fevers, but does not deny that some of the same family may have a similar influence.

The author does not claim to be entirely original in his theory. He has rather re-constructed the *dissecta membra* of an old one; given shape and substance to the ideas of writers, who have from time to time thrown out some crude suggestions—hinted at the probable influence of fungiferous plants in the production and propagation of certain fevers and epidemics. He pays a deserved but passing tribute to the researches of the microscopists, to whose labors and devotion, in the investigation of morphologic science, we are so largely indebted for a vast amount of valuable information. It is, then, the facts and observations, or rather the generalisation of those facts, made known by the microscope, that Prof. M. has collected and classified. The microscopic fungi are almost ubiquitous: according to writers, they ruin our preserves, render mouldy our bread; destroy the cornfields, rot our fruits; they damage our wines, pickles, sauces, paintings, leather, and, indeed, animals and a variety of plants. Where then, demands the Professor, are they not to be found? Do they not abound like Pharaoh's plagues, everywhere? Is not their name legion, and their province ubiquity?

Professor M. then compares the sporules of the fungi with the caliber of the lacteals and other absorbent vessels, and clearly demonstrates, he seems to think, according to the calculations of Fries, that these sporules, being much smaller than the chyle-and-blood globules, can be readily taken up by these vessels, and enter, and contaminate the circulating fluids. This is a *petitio principii* reasoning, begging the question, and the talented Professor must know, that if the same cause operates, through the same medium of absorption, and acts directly on the blood, it must, with rare exceptions, produce, nearly the same train of morbid symptoms. We ask is such the fact? but, will it be answered, that peculiarities of constitution—idiosyncrasies, local and climatic influences, determine the change, and modify the result? Again were these cryptogames the direct and active cause of what is called marsh fever, and other endemic diseases, New Orleans would not rejoice in a single healthy season, but would become the abode of an annual visitation of yellow fever, and other violent endemic and epidemic diseases. To reply that the absence or presence of epidemic yellow fever, in this place, depends upon the intensity of heat and the amount of rain that falls, is an argument that must fall to the ground, when opposed by the facts of the case. It is well known to every observant physician, who has witnessed several of our epidemics, that notwithstanding deluging, daily showers, continued in some seasons for six or eight weeks, late in the summer, only a few cases of yellow fever have occurred in our midst; indeed the cause or causes of this disease, of whatever nature, seem to be as active, in dry as in wet, seasons. The course of the fever is uninfluenced by either of the above conditions; but, if Prof. Mitchell's theory be true, we should have the same amount and species of sickness, during every wet and rainy summer and autumn, and remain exempt only in dry times.

We are not zealous advocates for *malaria* as the cause of our fevers; the same objections may be urged against this theory, as against Prof. Mitchell's substitute—then why not be candid—come out like honest men, and confess our utter ignorance of the proximate cause of our malignant fevers and epidemics. We are but little better acquainted with the causes of yellow fever, small pox, measles and all that tribe of affections, than with the nature and seat of the soul; the affections, &c. Prof. Mitchell has undoubtedly availed himself of some important facts and brought forward ingenious arguments in support of the cryptogamic doctrine of fevers; but we feel constrained to state, that this theory is not a whit more satisfactory than the old one. Medicine can only be advanced by collecting, arranging and classifying *facts*; these facts may be so collated as to establish principles, and from these principles, we deduce practical results.

If however such facts be misapplied, as in instances, to support a favorite theory, they will answer no good end; indeed, they will become so many barriers, in stead of helps, to the progress of any department of knowledge. Profesor M. thus recapitulates the substance of the arguments adduced to sustain his theory.

"I began, by showing that all the usually received opinions on this subject, are liable to insuperable objections, except that which refers to the causation by organic life, and especially by animalcules, as held by Columella, Kircher, Linnaeus, Mojon, and Henry Holland.

While I was impressed, for the reasons so ably stated by Holland, with the greater probability of the organic theory, I prefer, for reasons stated by myself, the fungous, to the animalcular hypothesis

My preference is founded on the vast number, extraordinary variety, minuteness, diffusion and climatic peculiarities of the fungi.

The spores of these plants are not only numerous, minute, and indefinitely diffused, but they are so like to animal cells, as to have the power of penetrating into, and germinating upon, the most interior tissues of the human body.

Introduced into the body through the stomach, or by the skin or lungs, cryptogamous poisons were shown to produce diseases of a febrile character, intermittent, remittent and continued; which were most successfully treated by wine and bark.

Many cutaneous diseases, such as *favus* and *mentagra*, are proved to be dependent upon cryptogamous vegetations; and even the disease of the mucous membrane, termed *apithæ*, arises from the presence of minute fungi.

As microscopic investigations become more minute, we discover protophytes in diseases, where, until our own time, their existence was not even suspected, as in the discharges of some kinds of dysentery, and in the *sarcina* of pyrosis. We are therefore entitled to believe that discovery will be, on this subject, progressive.

The detection of the origin of the muscardine of the silk worm, and a great many analogous diseases of insects, fishes and reptiles, and the demonstration of the cryptogamism of these maladies, their contagious character, in one species of animals, their transfer to many other species, nay even to vegetables themselves, all concur to render less improbable, the agency of fungi in the causation of diseases of a febrile character.

A curious citation was subsequently made, of the fungiferous condition during epidemics and epizootics. These moulds, red, white, yellow, gray, or even black, stained garments, utensils and pavements, made the fogs fetid, and caused disagreeable odors and spots, even in the recesses of closets and the interior of trunks and desks.

These moulds existed, even when the hygrometric state did not give to the air any unusual moisture for their sustentation and propagation. Their germs seemed to have, as have epidemics, an inherent power of extension.

The singular prevalence of malarious diseases in the autumn, is best explained by supposing them to be produced by the fungi, which grow most commonly at the same season. The season of greatest photophytic activity, is, in every country, the period of the greatest malarious disturbance. The sickly season is, in the rains in Africa, in the very dry season in Majorca and Sardinia, in the rainy season of the insular West Indies, and in the dry season of Demerara and Surinam. Even when the vegetation is peculiarly controlled, as in Egypt by the Nile, and the cryptogami are thus thrown into the season of winter and spring, that season becomes, contrary to rule, the pestilential part of the year.

Marshes are a safe residence by day, whilst they are often highly dangerous by night. In the most deadly localities of our southern country, and of Africa, the sportsman may tread the mazes of a swamp safely by day, although at every step, he extricates vast quantities of the gases, which lie entangled in mud and vegetable mould. This point, so readily explained by reference to the acknowledged nocturnal growth and power of the fungi, is a complete stumbling-block to the miasmatisers.

The cryptogamous theory well explains the obstruction to the progress of malaria offered by a road, a wall, a screen of trees, a veil or a gauze curtain.

It also accounts for the nice localisation of an ague, or yellow fever, or cholera, and the want of power in steady winds to convey malarious diseases into the heart of a city, from the adjacent country.

It explains also well, the security afforded by artificially drying the air of malarious places, the exemption of cooks and smiths from the sweating sickness, the cause of the danger from mouldy sheets, and of the sternutation from old books and papers.

On no other theory can we so well account, if account at all, for the phenomena, of milzbrand and milk-sickness, the introduction of yellow fever into northern ports, and the wonderful irregularities of the progress of cholera.

The cryptogamous theory will well explain the peculiar domestication of different diseases in different regions, which have a similar climate; the plague of Egypt, the yellow fever of the Antilles, and the cholera of India. It accounts, too, for their occasional expansion into unaccustomed places, and their retreat back to their original haunts.

Our hypothesis will also enable us to tell, why malarious sickness is disproportionate to the character of the seasons; why it infests some tropical countries and spares others; why the dry Maremma abounds with fevers, while the wet shores of Brazil and Australia actually luxuriate in healthfulness. The prolonged incubative period, the frequent relapses of intermittents, and the latency of the malarious poisons for months, can only be well explained by adopting the theory of a fungous causation.

Finally, it explains the cause of the non-recurrence of very potent maladies, better than the chemical theory of Liebig; and shows why the earliest cases of an epidemic are commonly the most fatal.

When I entered upon the task of elucidating for you this very difficult subject, gentlemen, I did not dream of its extent and importance, nor did I suppose it would have imposed upon me so much research, or inflicted upon you so many lectures.

I have, therefore, not attempted to account by this theory, for the periodicity of malarious diseases, rather for want of time than want of power, and from a desire not to tax too severely your patience.

The task is now completed. Yet, after all my labor and your polite attention, the theory presented to you, may not be finally demonstrated. But it is the most consistent with the phenomena known at present, and is much better sustained by established facts than any other hypothesis yet presented to the world. It has, therefore, the requisites of a philosophical theory, which, in other and more

exact sciences, would be accepted, not to be held as absolutely true, but as, in the present state of our knowledge, the most plausible and convenient explanation of the phenomena.

It has another value. It will revive the inquiry into the causes of fever, by giving to it a new direction, by offering new points of view, new motives for study and new lights from analogy. If, too, its confirmation or refutation should give to future inquirers after truth, half the pleasure which I have derived from excursions into this new field of mingled reason and fancy, these lectures will not have been vainly elaborated."

Thus closes the speculations of our author, and it is for the reader to determine if he makes out his "case," or if he has not rather made confusion worse confounded. We regret that the talented Professor, who has already distinguished himself by his discoveries in science, should have abandoned the track in which he bade fair to shed still brighter honors upon his name and country, and engaged in theoretical questions, which can neither be fairly refuted, or permanently established.

II.—*A Practical Treatise on the Domestic Management and most Important Diseases of Advanced Life; with an Appendix, containing a report of cases illustrative of a new and successful mode of treating Lumbago, and other forms of Chronic Rheumatism, Sciatica and other neuralgic affections, and certain forms of Paralysis.* By GEO. E. DAY, M. D., Fellow of the Royal College of Physicians, and Physician to the Western General Dispensatory. Phil., Lea & Blanch., 1849.

WITH the exception of *Canstatt*, of Erlangen, who wrote a work on the diseases of old age, published in 1839, we find no express treatise on this subject, until Dr. Day produced the present excellent and valuable book. Works on the diseases of childhood are abundant, we believe, in almost all languages; certainly, we are surfeited with them in the English, and it is a matter of surprise that the affections incident to old age, have received so little attention from book makers in this country, and in England. Is it because we feel less interest in the diseases of the aged, and are content to suffer our fathers and mothers to go down to the grave without making an effort to stay their progress, or to alleviate their miseries?

We regard this work as a desideratum in the medical literature of the day, and from the practical good sense every where to be found in the volume, we think Dr. Day has conferred a real service on mankind, and the profession. But let us doff the laudatory style, and descend to particulars.

The subject naturally suggested to the author, the division of human life into three great periods—those of Growth, Maturity, and Decline. He next considers these three epochs separately, and describes with great, though not with minute precision, the gradual development of the organs of the human body. This course was deemed necessary, in order that the young reader might be the better prepared to understand and appreciate those changes which characterise the advanced stage of our existence. We shall allude to a few of the ideas advanced by Dr. D., on these three points. In every subject a period arrives when there

is no particular augmentation of size, or change of form; this is designated the period of maturity. It may be supposed, as is really the case, that this period varies, not only in the two sexes, but also in the different subjects of the respective sexes, and it likewise varies in different countries. The age at which *men* begin to decline is fixed by the author, at the sixtieth, and in woman at the fifty-second year. This reasoning, of course, does not hold in every case—some beginning to decline much earlier, and others later, in life. Incipient old age, begins in woman at about the sixtieth, and in man, at the seventieth year. Ripe old age is seventy-five in woman, and eighty in man.

The failing of the physical and mental powers in advanced life, is then described with painful exactitude by Dr. Day; and on that account, we will not here recapitulate the sad effect of age upon our constitutions.

We shall pass on to notice the “alterations in structure and function of the organs most liable to be affected in old age.” Such organs are arranged by Dr. D. under the head of,

- 1st. Respiratory Organs.
- 2d. Nervous System.
- 3d. The Digestive Organs. And
- 4th. The Organs of Circulation.

The organs of respiration, as might be expected, experience material and important changes in old age; these we shall not pause to particularise, but refer to the work itself for a detailed account of such changes. The physical alterations to which these organs are subjected, produce a corresponding modification in the functions of such organs; hence we find, the blood, in its transit through the lungs, imperfectly decarbonised, leaving them with the “impress of venosity still adhering to it.” The oxygen, which imparts vigor and life to the organism, is diminished in the precise ratio to the increase of the carbon; hence the languor, the prostration and apathy of old age. The mucous membrane, lining the bronchial tubes, is so much altered, that it checks the escape of the aqueous vapour from the lungs, thereby interfering seriously with the elimination of certain organic matter, with which this vapor is ordinarily charged. This fact may enable us to explain the origin of those depositions so frequently found in the thoracic organs of the aged. In advanced life, we are positively assured that the brain and spinal marrow are diminished in size, weight, and also specific gravity. The same is the case with regard to the great nervous centers.

The membranes, covering and protecting the brain, likewise undergo considerable changes; the dura mater adheres more intimately to the bone; the pia mater becomes less vascular, and less opaque; occasionally we find deposits, on its surface, of calcereous matter. The brain, with its prolongations, presents a shrunken and diminished appearance; the sulci are deepened and widened. Perhaps this atrophied condition of the great nervous centers, may be due to the diminished supply of blood which these organs experience late in life.

Dr. Day alludes also to the modifications of the organs of vision, superinduced by longevity. The fluids of the eye become absorbed, or are lessened; the cornea is flattened, and elastic; the retina is atrophied; the lens flattened, more dense, and of a yellow tint. But it is scarcely

necessary to pursue this subject, as every intelligent observer can remark the gradual declension of the human system, late in life.

The diminished influence of the nervous system in the aged, and the consequent want of sympathy between the various organs of the body, rather serves to *insulate*, Dr. Day believes, the different organs; and it may be owing to this fact, if fact it be, that the diseases of old age, are sometimes so difficult to diagnosticate and to treat. Thus the lungs may be seriously inflamed, and the heart comparatively calm; and the same may be said of the liver, bowels, kidneys, etc. In childhood, and in youth, the reverse holds good; any disturbance or disease of an important vital organ, is the signal for great arterial excitement, and more or less acute and severe pain in the part or parts assailed. This results from a diminution of irritability and sympathy in all the textures and organs of the body. These modifications of the nervous influence, seem to keep pace with the progress of age, and the decline of physical powers, and hence we infer the existence of morbid changes in the vegetative functions, such as absorption, secretion, etc. In the advanced periods of life, important changes take place in the digestive organs; the stomach and intestinal canal become contracted and diminished in capacity—the result, probably, of thickening of the mucous membrane. Whilst these changes are going on in the inner lining of the gastro-enteric surface, the muscular intestines of the instenis and stomach is likewise subjected to alterations. It becomes atrophied, and it is asserted that in some instances, all traces of this tissue disappears. The follicles and villi with which this mucous surface is loaded, becomes wasted and “shrunk.” All these modifications of structure must cause a corresponding change of function; and such we find to be the case. The thickening of the alimentary mucous coat, interferes seriously with absorption; the atrophy of the muscular coat retards peristaltic action;—all these, together with other important changes, induced by imperfect and embarrassed digestion, will enable us to account for many of the diseases and infirmities of old age. “The dyspepsia, which is so often witnessed in the aged, proceeds partly from imperfect mastication of food—the result of bad teeth—and partly, says Dr. Day, from the blunted sensibility of the nerves of the stomach. We have seen some very old persons, (“*sans*” teeth, too,) whose stomachs could digest large quantities of meat with the greatest facility, and who were as free from dyspepsia and gastric derangements as an *anaconda*. Such cases may be regarded as exceptions; but they should not be overlooked.

In noticing the above changes, let us glance at those occurring in the *organs of circulation*. Beginning with the centre of the circulation, we find the size of the heart diminished, and its walls slightly thinned; the reverse, however, of this, sometimes obtains. The valves frequently become the seat of calcareous or other foreign deposits; sometimes such deposits extend throughout the arterial tree, being more abundant in some places than in others, according to peculiarities of constitution, the period of life, &c. &c. Changes of structure like the above, must effect other evils; the arteries lose their normal elasticity, and become the seat of aneurisms; or are ossified, beginning ordinarily in those points most remote from the heart. Hence the cause of senile gangrene. The capillaries are thickened, and we are disposed to think

some are obliterated late in life, and this will explain the palid complexion, and the cold surface of decrepid age.

The diminished calibre of the extreme branches of the arterial system, and the comparatively unchanged condition of the corresponding nervous system, will account, satisfactorily, for certain local venous congestions, varicose, apoplexy, etc., occurring late in life. If, with this condition of things, the heart be healthy, or more vigorous than usual, it will force the blood so rapidly upon the cerebro-spinal axis, that some of the arteries will be ruptured, producing apoplexy, paralysis and death. With this knowledge of the changes wrought in the circulating system in advanced life, we should recollect the uncertainty of the indications afforded by the pulse at the wrist, and therefore, says Dr. D. the *pulse should always be counted at the heart*. This remark should not apply alone to the aged; in all serious cases of sickness, at any period of life, where the pulse is fluctuating and the physician is in doubt whether to draw blood or to stimulate, (for he is often placed in this painful dilemma,) an examination of the sounds of the heart, the force of its contractions, &c., will frequently enable him to decide judiciously, and act promptly, at an opportune moment. To a distinguished Dublin physician, the profession is indebted for an interesting and practical paper on the force and sounds of the heart, as indicating the moment when depletion should be left off, and stimulants given. Dr. Day cautions the practitioner against what he calls a dangerous error—to regard as an established fact, admitted by almost all physiologists, that the frequency of the heart's action, diminishes in advanced life. He examined the pulse of 562 healthy women, whose mean age was 73 years, and found the average number of pulsations to be a fraction above 79 in a minute; whilst the average pulse of 197 healthy men of the mean age of 68 years, was 72.5. Our author therefore concludes, that the pulse is rather increased than diminished in frequency, in old age. Here our author lays down some good suggestions, as to the best method of preparing food for the aged: specifying the hours when the meals should be taken, and also the hours of sleep, &c.

Atmospheric vicissitudes exert a manifest influence upon the health and constitution of the aged; they should be recommended to seek a warm or at least temperate climate during the cold and fluctuating season of cold or northern climates. Those who are advanced in years should sedulously guard against the influence of external agents. To carry this suggestion into practice, they should adapt their clothing to the vicissitudes of the season. Careful attention should be given to the condition of the cutaneous surface; ablutions should be daily practised, followed by diligent frictions for at least half an hour. This hygienic measure is recommended to prevent or obviate the desiccation and death of the epidermis and the consequent thickening of the cutis. To enjoy fine health, the old require as much grooming as the horse; for the rest, they must, as they will, avoid every thing that has a tendency to shorten the span of their existence.

We come now to the more practical part of the work, and here we must be brief, notwithstanding the great interest of the subject. It was observed in the first part of this notice, that serious disease and disorganisation may be going on in the organs of the aged, and yet no

symptom be discovered to indicate or lead us to suspect the existence of such lesions. The author relates several cases to illustrate this singular fact, but we need not detail them in this place. It is on this account that the diagnosis of the diseases of old-age is rendered so difficult. In the treatment of the diseases of this class of persons, the alkalies and acids should be given with much care; and never in large doses or too long kept up; the same may be said of the neutral salts as they are known to diminish the plasticity of the blood.

Dr. Day is opposed to the frequent use of the metallic salts, as a general practice, in advanced life, and mercury sometimes produces disastrous consequences. He speaks in high terms of sulphur—says it relieves venous congestion; improves the condition of the blood, and exerts a salutary influence on the skin, and the pulmonary and intestinal mucous membranes. In giving active purgatives, where this is deemed necessary, we should combine with them some bitter and tonic infusion. As far as possible, we should confine our selections, in treating the diseases of old-age, to the “vegetable tonics—bitters, astringents, the gum-resins and balsams.” Of the stimulants, camphor is far the best, either with or without the carbonate of ammonia. There are many affections in the aged, with which the physician should not interfere actively; such are senile catarrh; hemorrhoids—hæmaturia—gonorrhœa; and other mucous and sanguineous discharges, the tendency of which is, perhaps, to ward off greater evils from the constitution.

The following are some of the principal diseases most fatal to persons in advanced life; bronchitis, asthma, consumption, pneumonia, hydrothorax, apoplexy, paralysis, cardiac diseases, aneurisms, calculus diseases, senile-gangrene, gouty and rheumatic affections. It is unnecessary to describe any of the above diseases as manifested in persons advanced in life; those who are curious to know more may consult the work by Dr. Day. Acute meningitis is so common in old persons that Schonlein, Prus and some others regard it as essentially a disease of declining life. It is not as common in England and this country as it seems to be in France and Germany. It differs in some of its symptoms, from the meningitis of earlier life; they are less marked, the individual is dull and stupid in the morning; the intellect is slow in combining ideas; the tongue is dry, with slight fever, although there is no increase of heat, except about the forehead, attended with headache. In the afternoon, the temperature of the body is increased; the conjunctivæ is injected; slight delirium. If the disease is not combatted at this stage of its progress, the patient becomes somnolent and comatose and usually expires in from five days to three weeks. The treatment must be antiphlogistic, but not carried too far; leeches to the mastoids—cold lotions to the head and mild cathartics will answer a good purpose. In short, the book abounds in useful suggestions and practical observations, and will, we are sure, be well received by the profession. Before concluding this meagre notice, we would direct the attention of the practitioner to the use of a form of counter-irritation, which is highly recommended by Dr. Day, in the treatment of lumbago, rheumatism, sciatica, and other neuralgic pains, incident to the young as well as old. The instrument employed to produce this kind of counter-irritation, is shaped like a small hammer, made of iron, with a smooth button about

half an inch in diameter, with a quarter of an inch in thickness, and is connected by an iron shank, with a small wooden handle. It is heated by holding the button over a spirit lamp, a quarter of a minute, when it is fit for use. The instrument, being thus heated, we proceed to apply the *button* to the parts affected, over which it must be passed several times in rapid succession until the skin is reddened. It gives but little pain, and may be re-applied from time to time, according to circumstances. We have no room to copy the cases in which this form of counter-irritation has been employed successfully by the author. J. B. Steel, Camp street, through whom, from the publishers, we received a copy, has the work for sale.

III.—*A Case of Carotid Aneurism, and some remarks on the diagnosis of that disease, published in the Southern Medical and Surgical Journal, with comments thereon, by the Editor, and a reply.* By JAMES M. GREEN, M. D. Macon, Ga., 1849.

To enter into the merits of this "controversy," we must premise that in November, 1841, Dr. Green operated on one James Deas, a convict in the Georgia Penitentiary, for an aneurism of the right carotid artery. The case, with a description of the tumor, both before and after the operation, was published in the *South. Medical and Surgical Journal*, accompanied with remarks thereon, by the Editor, Prof. P. F. Eve. From the description given of the aneurismal tumor, by Dr. Green, before the operation, the editor stated in his comments on the operation, that the tumor was not aneurismal, but probably of another character, perhaps, enlarged cervical glands, etc.

Whereupon, a correspondence, on the question of "*aneurism*" or no "*aneurism*" was carried on between the aforesaid Dr. Green and the editor of the *Southern Medical and Surgical Journal*.

Extracts from these letters are quoted in this paper and criticised by Dr. Green, in a spirit, however, we are happy to observe of courtesy and candor. We shall let the author of this pamphlet explain the reasons which induced him to lay the facts before the profession.

He says: "In the *Southern Medical and Surgical Journal*, for June last, I communicated the narrative of a case of aneurism, in which it became necessary to apply a ligature to the primitive carotid.

The respected editor of this *Journal* having cast a doubt upon the correctness of the diagnosis, and consequently upon the propriety of the practice pursued, it is perhaps due to the other gentlemen, who were connected with the case as well as myself, that I should present some observations on aneurismal tumors, going to prove that our diagnosis was correct, and the operation necessary and proper. To sustain this diagnosis in this case, Dr. Green invokes the high names of the Coopers, Hodgson, Mott, McClellan, Lister, Port, and Dupuytren. Without taking part in this controversy, we may be permitted to say that the reasoning of both gentlemen, the one sustaining, the other opposing

the diagnosis, in the case of Deas, is sound, and may be sustained by very high authority in surgery. The most able surgeons of modern times, have committed errors in the diagnosis of aneurism, and have ever delineated arteries for this affection when it proved to be an enlargement of a gland—or some simple and harmless fatty tumor, reposing directly upon the course of an arterial trunk. Admitting that Dr. Green did err in his diagnosis of this case, he should not forget that others, famous for their writings and operations, have committed much more serious mistakes. We will not undertake to say, however, that Dr. Green's diagnosis was false; we think, on the contrary, that he has adduced many facts and arguments to sustain his diagnosis in the case of Deas. Prof. Eve has combatted these arguments, and opposed these facts with others, all tending to refute the grounds assumed by Dr. G. Who shall decide the question? We think Dr. Eve, as an editor of an independent journal, had a right, as is the custom, to express his opinion as to the merits of the paper admitted into the June number of his journal, and for this expression of opinion, whether for or against the paper, Dr. Green should have received it in any other than an unfriendly light, since, we are bound to believe the editor to be a gentleman, slow to wrong, and swift to do justice to a professional brother.

We regret that this controversy was not confined to the pages of the journal, in which it originated; as such publications are apt to reach the non-professional public, who eagerly embrace every opportunity to vilify the doctors, and censure them for their difference of opinion in matters relating to the science of medicine. Disputations of this kind are more apt to excite unfriendly feeling than elicit truth, which should be the aim of all scholastic controversy; and we therefore expect to hear but little more on this subject. Before we dismiss this subject, we would invite the reader's attention to the manly, and elevated sentiments uttered by Prof. Eve, in alluding to this controversy. They are just and charitable, and entirely acquit the editor of the *Southern Medical and Surgical Journal* of any breach of professional etiquette, or desire to cast imputations upon the character of a brother practitioner. In comment No. 24, Page 49, Dr. Eve says:

"As we have given to Dr. Green every advantage, and introduced no new evidence, but attempted to explain and complete his own, we are now done with the discussion of this subject. The proof-sheets will be sent him, that errors may be corrected in any thing we have said or done, and this too in the present No., under the head of Medical Intelligence. We regret sincerely if we have unintentionally wounded his feelings in the slightest degree—nothing was farther from our object. We would not injure his professional reputation, fair and honorable as we have heard it to be, but on the contrary, he has our best wishes for a long and prosperous career of usefulness in life. But errors often occur in medicine and surgery. None of us are above committing mistakes in the exercise of the most difficult of all professions. We have not even accused the author of making one, but only expressed a doubt as regards his diagnosis, in a case. Mr. Wardrop, celebrated for his operations on aneurisms, is said to have lost a patient, who presented a tumor disconnected with the carotid, and a ligature around the tendon of the omo-hyoid muscles as it crosses the artery, and but a few months ago, it having been determined in consultation by distinguished surgeons in Paris, that a patient labored under a carcinomatous disease, the spermatic cord was first divided, and the scrotum laid open, when, lo and behold! a

sound testicle existed at the bottom of a hydrocele. The operation was arrested, a second consultation held, when it was decided to complete it, and for once the doctors could assure the patient his *cancer* would not return. The case of the late Mr. Liston is also one strikingly in point. The most distinguished pathologists failed to detect his disease--aneurism of the aorta.

Nor would he insinuate that Dr. Green intentionally misquoted from authors--the differences between us here may be justly attributed to different editions of the same work.

IV.—*Annual Circular of the Medical Department of the University of La. Session 1849-50. New Orleans, La.*

FROM this circular, we learn that the Lectures will commence in this flourishing institution, on the second Monday in November, and continue four months. The Medical Department of the University of Louisiana, has seven Professorships, as follows: One of *Anatomy*, by Professor Wedderburn; one of *Physiology and Pathology*, by Professor Hunt, (vice Dr. Harrison, deceased;) one of *Theory and Practice of Medicine*, by Professor Jones; one of *Surgery*, by Professor Stone; one of *Obstetrics*, by Professor Cenas; one of *Materia Medica*, and *Therapeutics*, by Professor Nott; and one of *Chemistry*, by Professor Riddell. Y. R. Lemonnier, M. D., the *Demonstrator of Anatomy*, has an unlimited number of subjects at his disposal, and the students will enjoy every facility for the attainment of a *practical* knowledge of anatomy. The Charity Hospital, entirely under the control of the faculty, during the course of Lectures, offers rare advantages to the student, for *clinical* instruction. Speaking of this noble charity, the circular says:

"This institution presents advantages to students not offered by any other in the country. The act establishing the University of Louisiana, gives the Professors in the Medical Department, the use of the Hospital, as a school of practical instruction. During the session of the school, it is therefore, under the charge of the Professors. The admissions in the course of the year amount to about twelve thousand, and there are usually to be found in its wards, about seven hundred cases, presenting almost every variety of disease. It is the practice in the Hospital, for the Professors, to visit daily, the Medical, Surgical and Obstetrical wards, between 8 and 10 o'clock, A. M., at which time the students have an opportunity of obtaining a vast deal of practical information, in witnessing the progress of disease and its treatment from day to day. In addition to this daily bed-side instruction--on Wednesdays, and Saturdays, regular Clinical Lectures be will delivered in the amphitheatre, where also will be performed all the surgical operations in presence of the class."

The same regulations which obtain in other well-ordered and respectable medical schools, in regard to the requisites for graduation, are strictly enforced in this University.

V.—*Southern Medical Reports, embracing Meteorology, Medical Topography and the Diseases of the Southern States.*

WE have received from Dr. E. D. Fenner of this city, a *prospectus* for publishing an annual volume, with the above title. The object of the work, he remarks, will be to "collect and present in a *durable form*,

the observations of physicians residing in different parts of the Southern States. It will consist of *general* and *special reports*; the first to contain concise accounts of the *meteorology, medical topography* and *prevailing diseases*, throughout the year; the second will be devoted to *extraordinary cases, surgical operations, &c.*

These reports are all to be handed to Dr. Fenner, the editor, by the first day of January, and will appear in a *neatly bound volume*, as soon thereafter as the work can be done. Each volume will also contain a brief retrospect of the latest discoveries and improvements contained in the medical journals of the year. Each volume will contain from five to six hundred pages and will be furnished to subscribers at three dollars and fifty cents. One copy will be sent gratuitously to all contributors, and three or more copies to the authors of annual reports."

With the exception of Wood's retrospect, which is devoted chiefly to the medical profession of the North, and Europe, we have nothing but a few medical journals, dedicated to the interests of physic at the South. The work, projected by Dr. Fenner is a desideratum, and will serve to reclaim much valuable statistical information and a large mass of medical history, which might otherwise be thrown aside and forgotten. We commend the "*Southern Medical Reports*" to the profession, being well assured that the well known energy, diligence and talents of the editor will be devoted to the medical literature of the South and West.

VI.—*The Reports of the Hon. T. O. EDWARDS, M. D., of Ohio, to the House of Representatives, on Sulphuric Ether, Patent Medicines, and imported adulterated Drugs, Medicines, &c.*

WE are indebted to the courtesy of the author of these Reports, for the above valuable documents. Dr. Edwards is entitled to the lasting gratitude of the Profession, of which we are proud to claim him as a member, for his efforts in Congress, to prevent the importation of spurious and adulterated drugs and medicines, into the United States. Through the zeal, talents, and industry of Dr. Edwards, a law was passed during the last Congress to this effect, and for the practical good resulting from this law, we may refer to the recent report of the inspector of drugs, &c., at the port of New York. The amount of adulterated medicines imported into New York, from July 19th to December 23d, is almost incredible, and cannot be less than 50,000 lbs. We have not as yet received any information from the cities, where this law is now in force: but we fear the same frauds have been practiced at all points in the United States, where large quantities of drugs are received. Hereafter, we may expect to prescribe medicines that will not disappoint our well-founded expectations, or lead us to doubt the efficacy and certainty of our therapeutic agents. Dr. Edwards, by orders from the Department at Washington, recently passed through this city, and will visit some other southern cities, on a tour of inspection, to investigate the operation of the above laws, and to inspect the condition of the naval hospitals.

&c. The result will doubtless be made known at a suitable time, to the Secretary of the Treasury. P. A. Bertrand, chemist and apothecary, has been appointed inspector of drugs and medicines shipped to this port. We shall make public every instance of an attempt to introduce adulterated or spurious drugs in our market.

We shall recur to this subject again.

VII.—*Valedictory Address to the graduating class of Geneva Medical College, January, 1849.* By CHARLES A. LEE, M. D. Professor &c., Buffalo, N. Y.

This address is admirable both on account of its fine style and the excellent sense, which it embraces.

He tells his class, just graduated, that the new relations, in which they stand to the world, are four-fold; such as they owe to themselves; to their patients, to their professional brethren, and to society at large. The eloquent lecturer then proceeds to define some of these duties, and manifests in the course of his remarks, a high sense of the obligations of the physician, and urges upon his auditory, the importance and dignity of the profession. He deprecates every species of quackery, and recommends the young physician about to enter upon the active duties of the profession, to do nothing unbecoming the character and standing of a gentleman and scholar. The address throughout, breathes a spirit of manly independence and an ardent love for the profession. Professor Lee is an ornament to the science, and we trust he may long live to inculcate its principles and uphold its dignity.

VIII.—*Memorial of the Massachusetts Medical Society, to the Legislature, on the Sanitary Survey of the State.* March, 1849.

Massachusetts, that venerable commonwealth, is about to advance another step in the path of civilization and improvement. The Medical Society of that State has memorialised the legislature on the subject of public health, and introduces it in the following words:

“That in their opinion, the matter of public health, and the physical condition of the people, are proper subjects for the watchfulness and care of the Legislature; and the facts and circumstances that diminish strength and produce sickness, and shorten life, and those which increase human power, prevent illness, and increase longevity, are worthy of the attention and examination of the government.

The attention of some of the European governments has been directed to this subject, and sanitary surveys have been made by public authority. By this means, singular and almost incredible differences of life and health have been shown to exist among the people in various places, and in various conditions of society. Many of the causes of disease and mortality have been revealed, and many of them are proved to be removeable.

Your memorialists now respectfully request, that the Legislature of Massachusetts cause a similar sanitary survey to be made of this State.

The objects of this inquiry are, first, to ascertain the localities of various diseases, where they prevail the most, and where they are the most fatal, and also where life is the longest, and where it is soonest ended.

If it should be ascertained, that the local sanitary influences are not the same in all places, and that different diseases prevail in different parts of the State, the knowledge of this fact will be of great practical value to the people, and especially to such as are liable to any particular disorder.

The human constitution is various in different persons. One man is subject to disorder of the bowels, another of the lungs, and another of the muscles. And these may be affected, favorably or unfavorably, by the air, or the soil, or the exhalations of various places.

In this variety of endemic influences, and of human constitutions, it may be possible so to adapt the one with the other, that a person who has any especial liability, may escape from those influences which would increase it. By selecting for his residence a place that is the most favorable to his health, he may, perhaps, avoid all suffering from the disease to which he would otherwise be subjected."

The foregoing representation holds good, not only in Massachusetts, but is equally applicable to many other States in the confederacy. If it be the duty of government to protect the lives and property of its subjects or citizens, surely it means something more than paying the value of private property, when appropriated for public good, or prosecuting an individual for killing, wounding, or maiming another! Is this the meaning and import of government protection? We shall recur to this subject in another number.

IX.—OBSTETRICS; *the science and the art.* By Charles D. Meigs, M. D., Professor of Midwifery, and the diseases of Women and children, etc., etc., etc. With one hundred and twenty-one illustrations. Philadelphia, Lea & Blanchard, 1849, pp. 684.

MIDWIFERY, says Prof. Meigs is an *art*; obstetricry is a *science*. A midwife or accoucheur is one who assumes the conduct of cases of labor; an obstetrician is a physician, who, in addition to a knowledge of medical sciences, likewise possess a thorough acquaintance with the diseases peculiar to the female sexual organs. Thus much for midwifery, both as a science and as an art. Prof. Meigs treats, 1st, of the anatomy of the parts concerned in the acts of reproduction, 2d, of the physiology of reproduction; 3d, of the therapeutics and surgery of midwifery, or the obstetric art; 4th of the history and diseases of the neonatus, or young child. He is not rigorous in the observance of the above division; but pursues the course, which he believes is best calculated to advance the student in the acquisition of obstetrical knowledge. It is not our aim to review this book; it will be generally read by the American student, for whose especial benefit it was written. The author has long been before the profession, both as a writer and lecturer,

and we can neither alter or qualify the public opinion in regard to his teachings. The book has much merit, not without, however, some blemishes. Of the doctrines and precepts it inculcates, we scarcely feel authorised to speak: much of the language is, to our taste, quaint—some pedantic, some unintelligible to most readers. We are informed that our author is a pleasing and instructive lecturer, and we know him to be an able and a popular practitioner.

Prof. Meigs has much practical experience, and all this is recorded in his "obstetrics." We are unable to find any thing new in this, his last effort; it doubtless embraces the entire subject and will command the attention of the American student of midwifery. It is a handsome volume, and may be found at J. B. Steel's Book store, 14 Camp street.

X.—*Practical Pharmacy; the arrangement, apparatus, and Manipulations of the Pharmaceutical shop and Laboratory.* By FRANCIS MOHR, Ph. D., Professor Pharmacix of the Royal Prussian College of Pharmacy, Coblintz; and THEOPHILUS REDWOOD, Professor of Chemistry and Pharmacy to the Pharmaceutical Society of Great Britain. Edited, with extensive additions, by WILLIAM PROCTER, JR., Prof. at Philad. Col. Pharmacy. Illustrated by 500 engravings on Wood. Philad., Lea & Blanchard.

To THE enterprising publishers, through J. B. Steel, we are indebted for a splendid copy of the above work. The text is beautifully printed, on good paper, and the engravings by which the context is illustrated, are beautiful specimens of that most ingenious and useful art. The book is practical in its aim, and the reputation of its authors, for learning, and accuracy in pharmaceutical science, leaves nothing to be desired by our chemists and druggists, to whom we commend the above work.

XI.—*An introduction to Practical Chemistry, including Analysis.* By JOHN E. BOWMAN, demonstrator of chemistry in King's College, London.

THE object of this little volume, for a copy of which we are indebted to Mr. J. B. Steel, 14 Camp street, is to enable the student to make experiments himself, without which, his knowledge of the principles of chemistry will be too general and too superficial to be of any practical utility. At schools and colleges, students read approved text books, hear lectures on chemistry, and witness experiments made by the professors; but they rarely ever make experiments for themselves; and by this system they acquire about as much useful information as a blacksmith's apprentice would learn of his trade, who should spend the years of his apprenticeship in the shop, seeing his master make horse-shoes,

nails, &c., without ever taking a hammer into his hand. But let the student learn to use the retort and crucible, to illustrate the principles which he learns, to analyse, and to note the changes produced by different chemical agents, and not only will his progress be rapid, but what he learns, will be permanently fixed in his mind. The objection to this course has been the costliness of the apparatus; an objection of little moment to those who recollect the extent of the laboratory, with which Sir Humphrey Davy commenced, whose apparatus consisted chiefly of "vials, wine glasses, teacups, tobacco pipes, and earthen crucibles! and his materials of the mineral acids and the alkalies, and articles in common use in medicine." Any well regulated kitchen would furnish the young chemist with such an apparatus as would enable him to perform satisfactorily numerous experiments, and the materials he would require, would cost but a trifle.

Professor Bowman's work is so purely elementary, that it must prove of great value to beginners, for whom it is specially intended, and we cordially recommend it to the favorable notice of teachers and students.

Part Third.

EXCERPTA.

I.—*Ophthalmic Medicine.*

SCROFULOUS OPHTHALMIA.—The irritability of the Schneiderian membrane in this disease, and the sneezing and other phenomena which it so frequently presents, are well known to every practical surgeon, yet, until lately, the actual condition of the mucous membrane lining the nose, has not received much attention. M. Morand has lately directed particular notice to this circumstance. He says: "In scrofulous ophthalmia the olfactory membrane participates with the conjunctiva in the inflammation that is set up; that it is especially about the turbinate bones, and in the anfractuosities of the nasal fossæ, that the inflammatory action resides; and that this shows itself in the form of an œdematous engorgement, precisely similar to what is observed in the eye-lids. The more I study this disease, the more convinced am I that this is the case. A little attention suffices to show that the redness and tumefactions of the pituitary membrane almost always precede or accompany that of the conjunctiva. This can be more positively determinated by means of the speculum auris. On examining attentively the interior of the nasal fossæ, one cannot fail to observe that the redness and swelling of the nostrils, and even of the upper part of the lip, that are so commonly observed in persons of scrofulous habit, are merely an evidence of the inflammatory action going on in that membrane. It is by proceeding in this way that we can best appreciate the degree and extent of this inflammatory action, the extension of which to the palpebral and ocular mucous surfaces is often very rapid; sometimes, however, it remains for a long time stationary, without showing any disposition to extend." For the relief of this disease M. Morand applies the nitrate of silver, either in substance, solution, or ointment, extensively over the surface of the pituitary membrane. The value of this remedy has been extensively attested by Dr. Edwards of Bath, and, according to his experience, with the most decided benefit, even in cases of long standing, and where other remedies had failed*.

Granular Conjunctiva.—Except in Egypt, we have never seen so many instances of what are termed granular lids as in Ireland. The cause of this it is as difficult to explain as it is why syphilitic diseases, with a breach of surface, are so prone to spread and run into phagedenic sores, in one part of Europe, and to throw out condylomatous excrescences in another, for instance in Southern Germany. The fact as to the peculiar disposition which the conjunctiva, particularly of the upper lid, has to become granular, either during the progress of, or as the sequel to the ordinary ophthalmia, among the lower orders in this country, is well known to practitioners. In certain subacute forms of ophthalmia, parti-

* Lancet for April, 1847.

cularly among the ill fed, badly housed, and poorly clad artisans and laboring population of this city, this granular condition can often be observable at a very early stage of the disease, when the villi upon the palpebræ become developed like a kind of nap upon the surface of the cartilage. The conjunctiva may be intensely red, but still shining and polished, and presenting distinct vessels. As soon, however, as the villi become developed in its first stage towards granulation, these vessels are no longer distinguishable, and the surface presents a dull red hue, and when it is examined with the lens, presents a roughened velvety appearance. From this to the stage where the surface of the upper lid, in particular, resembles a ripe raspberry, with distinct nail-headed granulations of several sizes, the appearances have been already described in books. It is to such cases, which are often met with in discharged soldiers, that we would now draw attention. Having frequently remarked that in cases which had recovered from granular lids, the surface of the conjunctiva covering the cartilage, presented a number of white furrows or cicatrices, crossing one another in different directions, it occurred to us that if those could be produced artificially, it would hasten and facilitate the removal of the disease. When, therefore, upon the lid being everted, a few of these granulations, with narrow pedicles, present above the rest, we remove them rapidly with a curved scissors, and also as many as stand out at the line of reflection of the everted cartilage, where they are usually very abundant. And then, or in cases where such peculiarities may not present, we make a number of incisions through the granular surfaces, down to the cartilage, with a small round-pointed knife, like an old-fashion dinner-knife. These incisions should commence below, in order that the blood may not obscure the operator's vision, and run the whole length of the cartilage. Four, at least, of these should be made, and they should be crossed by a number of cuts, drawn from above downwards, nearly perpendicular. By this operation a description of "firing," like that which is performed upon horses, is put in practice. The lid should be kept everted as long as the patient can bear it, in order to promote the hemorrhage, which is often considerable. The next day, upon examining the part, it will be found very much paler, and the granulations sunken and flabby, particularly along the line of the incisions. We then rub the surface of the lid, and particularly the incisions, with a smooth, heart-shaped crystal of sulphate of copper, taking care to insert it likewise under that portion of the lid behind the angle of reflection, which cannot be well exposed to view, for there the granulations are generally most abundant, and often remain and keep up irritation long after those lower down upon the lid have been cured. The surface of the lid should then be well oiled, as this lessens the subsequent pain very much. By these means, firing the lids every fourth or fifth day, and applying the bluestone on the alternate days, we have succeeded in curing cases of the most inveterate granulations. At the same time, constitutional treatment should not, by any means, be neglected: and among the strengthening medicines which we possess, cod-liver oil seems here particularly efficacious. In some cases the application of a single leech to the internal surface of the upper or lower lid every second day will be found very effectual; and, thus applied, leeches do not usually produce that œdema and erysipelas to which some persons are so liable, but great care must be taken that the leeches are not allowed to adhere too near the edge of the lid, where the wound which they make is often very annoying.

The following *method of applying Sulphate of Copper* in the granular state of the upper eye-lid we have employed for some years; it will be found much more efficacious, less painful to the patient, and much more easily applied than the ordinary mode of proceeding. The piece of bluestone should be shaped somewhat like a spade in cards, with a blade about three quarters of an inch long, and filed down to the eighth of an inch in thickness. It should be fastened by its shank in a large quill, and occasionally rubbed smooth with a little water, to keep its edge and surface even. When about to be used, the lid need not be

everted, but slightly lifted off the globe, by drawing the integument upward against the brow in the usual manner, and then the piece of bluestone may be inserted underneath the lid, towards the internal side, as high up as possible, and held a little out from the eye, so that it does not touch the surface of the globe. It is then drawn downwards and outwards towards the external angle. It is astonishing with what facility this manœuvre, after a little practice, can be accomplished, and what little uneasiness it causes the patient. Moreover, by this means we at once reach those large flabby granulations which are seated high up towards the reflection of the conjunctiva from the globe, and where, owing to there being less pressure exercised upon them, they grow much larger than anywhere else.

Dr. Clay Wallace, of New York, recommends a solution of six or eight grains of chloride of gold to an ounce of water, for the removal of granulations on the mucous membrane of the lids. "In recent cases," he says, "the chloride of gold is inferior to the nitrate of silver in curative effects, and it occasions far more irritation: in chronic thickened lids, on the other hand, it is vastly superior." *

Dr. Hays, in his commentaries on Mr. Lawrence's work, says that "a very large proportion of the applicants for admission into Wills' Hospital labor under this disease; and the treatment which they have undergone, as well as the statement of several patients, lead us to infer that physicians, generally, are not as well acquainted with the complaint as it is desirable they should be. Two years ago we were led by the favorable reports of the efficacy of iodide of zinc, in reducing enlargement of the tonsils, to try this application in cases of greatly thickened conjunctiva of long standing, which had proved rebellious to various remedies. The result was so satisfactory that we have since employed it in a few similar cases, and our experience thus far authorises us to recommend this remedy to the attention of the profession." In using this remedy, it is necessary to evert the lids, and wash off the caustic with some tepid water and a fine sponge, immediately after its application. When the eye is irritable, and there is much lachrymation, the author recommends a cold salt-water bath to the eyes. The douche will prove a useful mode of applying this.

Mr. Wharton Jones' work contains several useful though brief remarks on the subject. He says: "The ocular conjunctiva does not become granular, as the palpebral conjunctiva does, seeing that it does not possess a papillary structure, similar to that which, in the palpebral conjunctiva, forms the peculiar seat of granular prominences. Any granular appearance which may be presented by the sclerotic, or corneal conjunctiva, is owing to real granulations." He very properly lays stress on the necessity of examining the state of the internal surface of the upper lid in all cases of chronic ophthalmia. It is astonishing with what rapidity granulations will form, in some cases, and in some constitutions; even in the acute stage. In the epidemic of post-febrile ophthalmia, which we had lately in this country, when the disease was seated in the external tunics of the eye, a granular condition of the entire palpebral conjunctiva often formed in a few days, the granulations being of a dusky red color, large, and flabby. The patients in these cases generally had had one or more relapses of fever, and one of the most remarkable and constant symptoms in the disease, both when it presented as an external ophthalmia, chiefly affecting the conjunctiva and sclerotic, and also when it seized upon the internal structures, and was accompanied by defective vision, was a feeling of pressure upon the upper surface of the globe, as if the finger was buried deeply beneath the edge of the orbit. "In the treatment of granular conjunctiva," continues Mr. Jones, "care and perseverance are required; carefully conducted diet and regimen; tonics, good air, and protection from changes of weather, are important general points of treatment. The local treatment should consist of, first, the application of a leech or two to the eye-lids, occasion-

ally, to relieve congestion; second, counter-irritation kept up by repeated blisters to the nape of the neck; third, scarifications of the affected conjunctiva, every second or third day, and immediately thereafter, the application of some strong salve, such as red precipitate. If the granulations are large and prominent, instead of simply scarifying them, they may be shaven off with a lancet-shaped knife, or if pedunculated, they may be stripped off, one by one, with curved scissors.* In another place the same author says: "A mode of scarification which I have employed with advantage, consists in making a small crucial incision through each granulation, or, when they are small and closely compacted, by making a number of cross hatches."† The latter mode of practice strongly coincides with our own operation described above.

M. Desmarres uses caustic pencils of graduated strength, prepared by mixing nitrate of potash with nitrate of silver, in the proportions of one-half, a quarter, and the eight of the caustic ingredient.

Gonorrhæal Ophthalmia.—In his lecture upon syphilitic diseases, lately published in the *Lancet*, ‡ M. Ricord recommends the application of the solid nitrate of silver to the affected surface, so as to produce a white film, but not to destroy the tissues; after which he advises the thorough irrigation of the part, in order to wash off any portion of the salt which may adhere. By this means, he says, the secretion is momentarily suspended, but when the crust formed by the caustic falls off, the pus reappears, though, it is then lighter in color and turns sero-sanguineous. "So long," he says, "as little white streaks, the result of the cauterization, remain visible, and so long as the secretion is not again purulent, you may judge that the influence of the nitrate is continuing; but when the streaks have disappeared, and the secretion re-assumes its primary character, you may infer that the effects of your cauterization are over, and you may then repeat it; indeed it can safely be used three times a day." He thinks that mercurial friction in the early stage of the disease rather tends to increase than diminish it. When chemosis ensues, he advises its immediate incision; at the same time he thinks that the cauterization should precede the incision. It is in the early stage of this symptom, and when it is merely the result of œdema, that he thinks most benefit can be derived from it, but "when the chemosis has reached the phlegmonous state, it can no longer be excised, you must then have recourse to scarifications, but their effects are very inferior to those of excision. In the interval between the cauterization with the solid nitrate of silver, I inject into the eye, three or four times a day, a weak solution of the same salt." M. Ricord also depletes largely, both generally and locally. While we agree in the general rules laid down for the treatment of this disease by the distinguished author whom we have just quoted, we confess our dread of rubbing the coats of the eye three or four times a day with the solid nitrate of silver. Upon the subject of the treatment of the urethral discharge, during the continuance of the ocular affection, M. Ricord's observations are worthy of attention. The urethral discharge, he says, no doubt diminishes, but never altogether ceases, when the eye is engaged. He objects to taking pus from another individual in order to reproduce the urethral discharge, because, as he justly says, there may be latent chancres in the urethra which yields the pus, and then an additional misery might be entailed. When the ocular disease has been communicated from the urethral discharge of the same person, he uses copaiba "in order to control the urethritis, as in so doing I remove the chance of relapse as regards the eye."

Intermittent Quotidian Ophthalmia.—Dr. Lohman, during the intermittent fever which prevailed last year, observed the following case. A man thirty-eight years of age was attacked for five consecutive days, at the same hour, with violent pain in the left eye, accompanied with increased flow of tears,

* *Ophthalmic Medicine and surgery*, p. 177—8.

† *Ibid.* page 38, s. 149.

‡ *The Lancet*, February 12, 1846

redness of the conjunctiva, and some intolerance of light. An hour afterwards the pain extended to the orbital region, and towards evening, about seven o'clock, the symptoms gradually diminished, perspiration ensuing. The next morning no sign of the disease remained. The right eye was not in the least affected. Before the occurrence of the attack each day the patient experienced some uneasiness, not, however, amounting to rigor. Leeches, blisters, and various applications, were tried in vain. The administration, however, of twelve grains of quinine cut short the disease on the sixth day. *

Fatal Tetanus from Injury of the Cornea.—Mr. Pollock has related a case of a man, aged 33, who had received a lacerated wound of the cornea, from the lash of a gig whip. The cornea was completely divided, but there was no prolapsus of the iris. Violent inflammation ensued, and on the evening of the sixth day tetanic symptoms set in; on the ninth trismus was fully established, general tetanus ensuing; he died upon the tenth morning, the globe having previously suppurated.† The case is one of extreme interest.

Rupture of the Cornea.—A case of this description has been lately mentioned as occurring from the extraction of a molar tooth, in performing which the maxillary bone was fractured. It is said that at the moment both sight and hearing were lost, so that we must suppose the shock was very great. The cornea of the eye immediately presented a peculiar livid appearance, and the hernia of the iris suddenly took place through the rent. Violent inflammation appears to have ensued, and a large staphyloma followed. Dr. Duval removed this latter, as well as the protruding chemosis, upon the eighth day after the accident, by which means the pain and inflammation were greatly lessened. Both the senses of hearing and tasting were greatly impaired by the accident, and have not since been recovered. These defects are attributed to some lesion of the fifth pair of nerves.—*Dublin Quarterly Journal of Medical Science*

II.—Report on the Progress of Practical Medicine, Pathology, and Therapeutics. By the Editor of RANKING'S Abstract.

GENERAL PATHOLOGY.—As faithful chroniclers of the progress of Medical Science, it is our duty not only to notify the advance of each and of all its departments, but also to remark upon any arrest in the stream of improvement when such is observable. We feel, therefore, bound to state that the semestrial period upon which we have now to report, has been more than commonly unprolific in the department of practical medicine, so much so, indeed, that it has not been without difficulty that we have been able to select from the numerous sources at our command, sufficient valuable matter to make up our ordinary number of pages. This deficiency is to be accounted for partly, by the fact that the attention of the profession has been lately directed into other channels by the attraction offered on the subject of ether and chloroform inhalation; but it is mainly due to the falling off observable in the foreign journals, the greater portion of which have been chiefly occupied by surgical communications arising out of the events by which the continent has recently been, and is at this moment, disturbed.

Among the newly published works which have reached us for notice in the present Report, we would make particular mention of a 'Treatise on the Practice of Medicine,' 2 vols. 8vo, by Professor Wood, of Philadelphia, as a production of no ordinary merit. It may be safely stated to be, for comprehensiveness and

* *Gazetta Medica di Milano*, February 27, 1747.

† *Medical Gazette*, June 4, 1847.

careful digest of matter, second only to the herculean labors of Dr. Copland, and has the advantage, not always perceptible in similar works, of being brought up strictly to the knowledge of the day. It must not, however, be looked upon solely as a compilation, for although, as must of necessity be the case, it is a digest of the opinions of the most reputable authorities, it is also enriched by the record of the actual experience of a physician whose opportunities of observation have extended over a period of thirty years, and who enjoys the reputation of being one of the most skillful and scientific practitioners of our sister country.

We have also, through the politeness of the publisher, an opportunity of directing the attention of our readers to a second edition of Dr. Graves's *Clinical Medicine*, issued under the superintendence of Dr. Moore Negligan.* The reputation which these lectures have already attained, is such that a further tribute of praise is almost unnecessary, but we should not be doing justice, did we not state that, by the judicious alterations in the arrangement of the old text, and the introduction of several lectures not included in the past edition, the present volumes have been much enhanced in value. Among the latter, as of direct interest at the present moment, we would particularly allude to the author's lecture on cholera. The lectures on fever, which constituted so valuable a portion of the original volume, have also been much altered in arrangement, and extended by a history of the late epidemic. In fine, every subject treated of has the advantage of being perfected by the experience of the author, subsequent to the publication of the first edition.

ZYMOTIC DISEASES—Typhus and Typhoid Fevers, Diagnosis of.—The readers of the "Half-yearly Abstract" have, at various times, been made acquainted with the discussions at home and abroad, upon the identity of typhus and typhoid fever. In addition to the opinions mentioned in former volumes, we shall here adduce those of two of the latest writers on the subject, Dr. Wood and Dr. Wilshire.

Dr. Wood, whose opportunities of witnessing the two forms of fever have been such as are afforded only in America, where they both rage with nearly equal intensity, expresses himself as follows on the means of distinguishing them:

"Typhus fever less frequently commences insensibly than enteric (typhoid), and is upon the average of shorter duration. Instead of diarrhœa, or the susceptibility to purgatives, which attend the latter disease, there is usually constipation; and the fecal discharges are darker and more offensive. Hemorrhage from the bowels, which is not infrequent in the advanced stages of enteric fever, seldom occurs in typhus. In this complaint, epistaxis at the commencement is less frequent, there is more stupor, and a darker color of the face, more turbidness of the conjunctiva, and greater debility. The eruption in typhus also differs from that of enteric fever. It generally commences earlier, is not elevated, is of a darker hue, does not so readily disappear under pressure, is much more abundant, and, instead of being confined to the abdomen and chest, is diffused over almost the whole body. In typhus, the abdomen is often flat, and perfectly free from tympanitis; which is never the case in enteric fever.

"The anatomical characters of the two fevers are very different. The peculiar disease of the glands of Peyer, and of the mesenteric glands, so constantly present in enteric fever, is never found in typhus, or so seldom, as to lead to the suspicion of an intermixture of diseases when it does occur. The spleen is less frequently enlarged and softened in typhus.

"Enteric fever almost never attacks the old, who are frequent victims of typhus. The former disease is endemic in various countries, arises here and there without obvious cause, and, if ever contagious, is very feebly so; while typhus seldom occurs in isolated cases, is always contagious, and often epidemic."

* Clinical Lectures on the Practice of Medicine, 2d Ed. 2 vols, 8vo.

Nevertheless, the author admits there are cases of a mingled character, in which the elements of the two fevers may be supposed to co-exist.*

The observations of Dr. Wilshire, which occur in the course of his valuable lectures on the diseases of infancy, are recapitulated briefly in the following tabular arrangement:

<i>Typhoid Fever, Adynamic Fever, Asthenic Fever, Low Fever, &c., of France and Great Britain, &c.</i>	<i>True Typhus, Contagious Typhus, True Maculated Fever of Great Britain, etc. etc.</i>
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NOT INFECTIOUS.

Cutaneous eruption often wanting; does not appear so early; more of the nature of petechiæ; does not disappear under pressure—no true exanthem

Cerebral symptoms not appearing early—not so frequent.

Course prolonged, fifteen to thirty days—relapses common

Not common before fifteen years of age, nor after fifty.

Attacks those predisposed to a febrile affection by exposure, vicissitudes, or is sporadic.

May occur under the milder grades of the causes of typhus, or entirely without them—is sporadic.

Derangement of alimentary canal constant—important alterations connected with the intestinal follicles found—spleen large—intestinal perforation frequent.

EMINENTLY INFECTIOUS.

Cutaneous eruption a true exanthum—different from petechæ, which may accompany it—former of a reddish pink color, disappear under pressure, soon to return on removal of it—sometimes dark, like measles, and not removable by pressure.

Early delirium, stupor, or typhomania.

Period of crisis about fourteenth day—relapses unfrequent.

Children often attacked when the disease is epidemic.

Generally presents itself as an epidemic, and may attack any one coming within its sphere.

Caused by the same—by famine as the predisposing cause: epidemic.

Post-mortem results often negative, and when lesions are present, they bear no comparison with the severity and rapidity of production of those of typhoid fever.†

Typhus Fever, Exanthematous Nature of.—Contrary to the opinions expressed by the writer last mentioned, Dr. Williman has endeavored to prove that typhoid fever is a true exanthem, and as such should be placed in the same category with other eruptive fevers. He bases his opinion upon their similarity in the fact of incubation, in the presence of a distinct eruption, in its prevalence contemporaneously with other eruptive diseases, and, like them, in the subjects of it becoming exempt from a second attack. The analogy is further exemplified in comparison of their respective pathological lesions.†

Influence of Warm Baths in Typhoid Fever.—In former volumes we have given evidence of the great advantages to be derived in the treatment of fever from the external use of cold water, the results of which have been a more speedy restoration of the functions of the skin, and a proportionately rapid amelioration of the cutaneous functions, is aimed at by the employment of warm baths; the utility of which is much insisted upon in a recent memoir by Dr. Herveux.‡

It would be a needless occupation of space to give this author's observations *in extenso*, as the subject is treated with the discursive verbiage characteristic of many of his countrymen's writings; but it may be stated briefly that, under the use of tepid or warm baths, repeated daily or oftener, according to circumstances, he has noticed that the pulse improves in volume and softness, at the same time that its frequency diminishes, that the cerebral excitement is allayed, the tongue becomes moister, and, finally the skin becomes more supple, and perspirable.

Typhus Fever, Convulsions in.—Mr. Aitkin relates five cases of fever occurring within a period of twenty-one days, all of which proved fatal by convulsions. The author hesitates in fixing upon an explanation of so unusual an occurrence, but is inclined to associate it with the presence of morbid matter in the blood.**

Congestive Fever.—This fatal form of fever, happily unknown in our country, is the subject of an essay by Dr. Lãvender.†† Congestive fever, or "per-

* Treatise on the Practice of Medicine, vol. i. p. 346.

† Lectures on the diseases of Children.—Medical Times, May 20, 1848.

‡ Charleston Medical Journal, July, 1848. § Archives Gẽnẽrales, April, 1848.

** Monthly Journal, June, 1848. †† Amer. Journ. of Med. Science, July, 1848.

nicious" fever, as it is called by Dr. Wood, is a form of disease in which the vital powers are depressed by the miasmatic poison to a degree in the great majority of cases incompatible with successful reaction. In its access and antecedents, Dr. Lavender observes that it is not to be distinguished from ordinary intermittent; but when once set in, there is a greater amount of vital prostration and precordial anxiety. His general description of the symptoms, which is for the most part identical with that given us by Dr. Wood, (Op. cit.) is as follows: There is great thirst, with a tormenting sense of internal heat; the surface is cold, and bedewed with perspiration; the countenance is expressive of alarm; the pulse small, or almost imperceptible; there is vomiting and diarrhœa; and in fact, the disease in many respects closely resembles *algide cholera*. Death takes place either by coma or convulsions. The fatal moment is sometimes delayed by the free use of stimulants, and at other times partial reaction takes place, and the skin becomes warm; but soon another paroxysm ensues, and the patient is again collapsed. A third paroxysm, according to Dr. Wood, is invariably fatal.

In order to arrest so formidable a disease, the promptest treatment is required. The various remedies are spoken of in succession by Dr. Lavender. Bleeding requires great caution, and should, he observes, be always combined with the use of stimulants; but, on the whole, he condemns loss of blood, whether general or topical; in which opinion he is energetically supported by Dr. Wood. The author further alludes to a condition which is very likely to betray the inexperienced practitioner into bleeding. This is when the congestive attack having yielded to quinine, the surface becomes warm, the pulse full; there is at the same time a feeling of restlessness and apprehension, with headache. If the attendant is induced to take blood under these circumstances, the author considers that fatal collapse will be induced to a certainty, either immediately or a few hours after.

The great remedy is quinine in large doses. The author states that from 5 to 20 grains should be given every hour, until its characteristic effects are produced, or amendment declares itself. Dr. Wood gives 2 grs. calomel, 2 grs. quinine, and 2 grs. opium every hour, alternating with acetate of lead, kino, and opium, and combined with external warmth. When an interruption or remission is thus obtained, his practice is to get down from 30 to 60 grains of quinine before the period of the next paroxysm. If the stomach is too irritable to bear it, he gives it per anum in double the quantity. (Op. cit. p. 295.)

The nature of this fatal fever is a matter of doubt, even amongst those who have the most frequent opportunities of witnessing it. Dr. Wood shows good reason for believing that the miasmatic poison in some manner destroys the balance of innervation, and that to this loss of previous power the congestion and other symptoms stand in the relation of consequences. (Op. cit.) The same view is substantially maintained by Dr. Bartlett.*

Paludal Cachexia.—In connexion with marsh fevers, we may briefly allude to a communication by M. Duclos, on the peculiar state of system to which the paludal poison gives rise, and which he calls paludal cachexy. This condition, he states, declares itself in two ways—coming on gradually and insidiously, or as the result of repeated attacks of intermittent. In either case its effects are much the same, and consist in the gradual decadence of the functions, flaccidity of the muscles, pallor of the skin, and debility, to which, as the impression becomes more profound, are added, anasarca, and effusions into the serous cavities.

Of these symptoms, the pallor and debility are generally first in the series. The skin and mucous membranes put on the appearance of confirmed chlorosis, the appetite diminishes, and, finally, the dropsical symptoms appear. Consistently with these, certain changes take place in the liver and spleen. Hypertrophy of the spleen is almost a constant phenomenon; the same state of the liver

* Fevers of the United States, p 532.

is not so frequent. In seeking an explanation of these different phenomena, M. Duclos states his belief that the starting point of the disease is an alteration in the blood, consisting in a loss of globules, with positive increase in the porportion of water. In what manner paludal emanations operate in inducing these changes he does not attempt to decide. The treatment consists in removal of the patient from the marshy district, with the exhibition of quinine and chalybeates.*

Antagonism of Intermittent and Phthisis.—An elaborate memoir has been published by M. Renzi, in elucidation of the question of the mutual exclusion of the above diseases, the reality of which is maintained by many. The author, who has been at some pains to gain information from physicians residing in many localities, determines that there is no foundation for the opinion.†

Cholera.—In a former page, (p. 180) we have given a few of the numerous methods of treating this disease which have recently appeared. From them we can draw but one conclusion—that the disease is not one whit better understood now than in 1832; and that our treatment of it will be as grossly empirical as at that period. Government has decided, apparently to its own satisfaction, that the disease is not contagious, but with rare consistency enforces quarantine as strictly as heretofore. Should the disease again be rife among us, which there is too much reason to fear will be the case, we trust, for the credit of our profession, that it will be studied in a more philosophical manner than has yet been done, and that men will abstain from rushing into print with their one or two cases *cured* (?) by this thing and the other thing, but rather wait till the accumulation of their facts shall give them justifiable data for forming an opinion.

In Dr. Graves's Clinical Lectures, (2d Edition,) the distinguished author has included an elaborate and faithful history of the rise and progress of this pestilence during its last outbreak; in the course of which he gives the strongest evidence of its contagious nature.

With respect to the treatment, the author's experience may be summed up in a few words. He, at first, tried the calomel plan; but finding it utterly fail, he was induced to make trial of the acetate of lead, from which he derived the best results. His plan is to give one grain of the acetate with the twelfth of a grain of opium every half hour, till the discharge from the stomach and rectum began to diminish.‡

Among the host of medicines employed in the treatment of cholera, there is none, presuming the evidence to be trustworthy, which has appeared more flattering than chloroform given internally and by inhalation. Of the former mode of exhibition, cases are recorded by Mr. Brady§ and Mr. Stedman.** In the former instance the patient was in an advanced stage of collapse, with excessive spasm, when the narrator gave a draught consisting of 20 drops of chloroform, and the same of turpentine in brandy, with the effect of relieving the thirst, and tranquilising the irritability of the stomach and bowels; a second dose was followed by decided symptoms of reaction, which ended in recovery. As soon as the stomach was quieted, a pill, consisting of five grains of calomel and oxgall, was given.

Mr. Stedman's case was equally severe, and equally successful under the same treatment. (See Abstract, p. 25.)

The evidence in favor of the inhalation of chloroform is of the most flattering kind. Dr. Hill†† states that he has employed it in the Peckham Lunatic Asylum, in ten cases, with the most complete success; in one who was fast sinking, it was used with the abatement of every bad symptom. Time will speedily show whether these results are confirmed by other observers; if so,

* Encyclograph des Sciences Médicales, Avril, 1848.

† Gaz. Med. 31, 1846.

‡ Op. cit. p. 419. § Medical Times, August 12.

** Ib, August 23.

†† Reported in Times of October 30; in Lancet, November 1.

Dr. Simpson, as the discoverer, will be entitled to a still higher meed of praise than has yet been accorded to him.

An important fact has been elicited from the examination of choleraic blood by Dr. Garrod, viz. the large amount of urea which it contains, larger than in any case of Bright's disease which he has examined. This disclosure might have been anticipated as a consequence of the suppression of urine, but, to the best of our belief, it had not been previously demonstrated.

"*Ochlesis*."—Dr. George Gregory has recently made a communication, the object of which is to give a brief sketch of the evils which result from the accumulation of a vast number of sick persons under one roof. The author designates the general condition of disease produced under these circumstances by the term "*ochlesis*," derived from *οχλος* a crowd. The normal type of the disorder is erysipelas of the face; but there are a great number of allied affections which appear at different times with it, either separately or in combination. These are, erysipelas in the extremities, especially affecting wounds or sores; tracks of erythematous redness, following the course of the chief absorbent trunks, and terminating in abscesses; cellular inflammation of the lower limbs, or phlegmasia dolens; cellular inflammation of the neck, leading to abscess, cynanche, otitis, glossitis, inflammation of the joints, terminating in purulent effusion; spontaneous gangrene of the genitals and of the extremities; gangrene supervening upon wounds or sores; spontaneous gangrene of some portion of the trunk of the body, especially in new-born children; gangrene of the umbilicus. Instances of pure fever, of a low type, from the same source, are not uncommon. Diarrhœa sometimes is the result, from the mucous membrane of the bowels becoming affected; and in the wards of lying-in hospitals the "*ochletic*" miasm expends all its virulence on the peritoneum. The author has seen an asthenic form of laryngitis produced by the same cause, and believes that the pneumonia which springs up in hospitals has likewise its source in the contagious *ochletic* miasm. This miasm too, he thinks, produces the excessive depression which attends the worst cases of sea-scurvy, and he has seen it occasion, in the Smallpox Hospital, a state resembling, in all respects, scurvy itself. All the disorders, originating in the *ochletic* miasm are characterised by a low condition of the *vis vitæ*, and intractibility. The experience of the Smallpox Hospital during many epidemic visitations, especially in the years 1842, 1844, 1847, and 1848, has convinced the author of the fact, that all the diseases which he has enumerated may arise from the same miasm. Contagious peritonitis is perhaps the only form of the *ochletic* malady that he has not seen at that hospital during the last twenty-five years; but he regards it as quite certain that this is "*part and parcel*" of the same disease. The chief agent in the production of *ochlesis* is, certainly, the crowding together of the sick in one spot; but matters are made much worse by unfavorable locality, by dampness of the surrounding soil, imperfect drainage, or choked sewers, by deficient ventilation, by the character of the cases congregated, by neglect of personal cleanliness, by the employment of unpurified bedding, and by inefficient purification of the wards. Since, however, the *ochletic* miasm is evolved only at certain times, a peculiar, but unknown, condition of the atmosphere must concur towards the actual result. The *ochletic* miasm appears to attach itself strongly to the walls and floor of the apartment—hence the use of covering the floor with a mixture of quick-lime and water, of lime-whiting the walls, of fumigating with nitric acid or chlorine &c. The great means of checking the development of *ochlesis*, however, is to restrict the admission of patients, and to leave the infected ward unoccupied for a certain time.

III.—Œdema of the Glottis.

M. BAIZEAU (*Gazette des Hôpitaux*, 1849, No. 20) relates an interesting case of this affection. A soldier complained on the night of the 8th of February, of slight angina, which next morning was regarded by the surgeon as of little consequence. During the night of the 9th his symptoms became much exasperated: and as they were about to remove him to the hospital on the morning of the 10th, he died asphyxiated. The tonsils were found scarcely enlarged. One of them contained some plastic exudation, mingled with a little pus. The mucous membrane was colorless, save here and there a patch of ecchymosis. The epiglottis and arytenoid-epiglottic folds were considerably swollen, and did not subside under pressure of the finger. The mucous membrane covering them was sprinkled with redish-brown spots, and was thickened and gorged with blood, a whitish plasma being effused beneath it, much resembling the matter found in cerebro-spinal meningitis, and not removable by scraping. An œdematous state of the glottis existed, especially on the left side; but the obstruction, unless this were greater during life, could scarcely produce asphyxia. The œdema glottidis was in this case dependent upon the phlegmasia of the epiglottis, just as œdema in the vicinity of hepatised portions of lung is dependent upon pulmonary inflammation; and probably several cases of asphyxia, which are attributed to amygdalitis, really depend upon this cause.

M. Bazzoni (*Gazette Médicale* 1849, No. 7) furnishes a case still more sudden in its termination. A young girl, 20 years of age, in perfect health, and much addicted to very noisy singing, was attacked one evening with shivering, hoarseness, and difficulty of deglutition. At midnight, intense dyspnœa set in, accompanied by a small pulse, and two hours afterwards she died, while preparations were making for performing tracheotomy. The only thing discoverable after death was great œdema of the cellular tissue of the entire larynx, unaccompanied either by redness or ulceration.

[To the above cases we are enabled to add another, which occurred a short time since in our own practice. A young man, æt. 20, previously in good health, was affected with slight *angina tonsillaris*, for which a blister and saline aperients were ordered. After the action of these he seemed, next day much improved, and was left late at night by his friends, talking cheerfully, though in a subdued, almost whispering voice. They heard him making a strange noise about seven the next morning, and on entering the room found him dead. On a careful examination of his body, made by Mr. Swan, no other morbid appearance was discovered (save a few old pleuritic adhesions) than an œdematous state of the glottis and epiglottis, sufficient doubtless, with attendant spasm, to obstruct the entrance of air. The body, however, at the time of death presented none of the external signs of death from asphyxia. These cases are distressing in the extreme to the practitioner, as from the slightness of the preceding symptoms his prognosis is at fault, and from the suddenness of their termination the appropriate treatment is not available.]

When the disease is of more gradual growth than in the above cases, and set forth by its appropriate symptoms, Dr. Buck (*American Journal Med. Sciences*, No. 33, p. 240) has found scaring the epiglottis and glottis a very successful practice. The patient is seated in a chair, with his head thrown back, and supported by an assistant. He is directed to keep his mouth wide open, or this is done for him by the insertion of a gag between the molars of the left side. The forefinger of the left hand is now passed into the right angle of the mouth, until it reaches the epiglottis, and then it may generally with but little difficulty be carried above and behind this part, so as to overlap it and press it forwards to the base of the tongue. This done, a narrow, curved knife is introduced, with its concavity downwards, along the finger, until its point reaches the nail, when, by raising the handle so as to depress the blade, the cutting extremity is brought between the edges of the glottis, and is rotated

from one side to the other, imparting a cutting motion to it during its withdrawal. This may be repeated, without removing the finger, two or three times on either side; and the margin of the epiglottis, and the swelling between it and the base of the tongue, may be scarified still more easily by the knife, or a scissors curved flatwise. The disagreeable sensation of suffocation is soon recovered from; a slight hemorrhage follows, which should be encouraged by tepid water. In all the cases the operation has required one or two repetitions. Eight cases of the disease have occurred in the New York Hospital in eleven months, in five of which scarifications were performed with success; the other three patients, in whom they were not resorted to, dying. Dr. Buck particularly dwells upon the *swollen state of the epiglottis* as a pathognomonic sign, ascertainable by the finger. The author was not aware that any one had performed an analogous operation except Mr. Busk, who treated two cases with success by repeated punctures made at the back of the tongue, uvula and pharynx. Since he wrote his paper, however, he has learned from Valleix that Lisfranc scarified the glottis with success in five cases.—*Brit. For. Review.*

IV.—On the treatment of the West India Remittents and Intermittents by Quinine. By DR. D. BLAIR, Demarara.

When quinine is taken by an adult to the extent of thirty or forty grains, it produces certain cerebral symptoms, the constituents of which are a ringing noise in the ears, and more or less deafness. This set of symptoms, where there is no idiosyncrasy, indicates the saturation of the system by the medicine, as ptyalism does mercury, and may be conveniently known by the name of *cinchonism*. Rare instances occur in which hyper-cinchonism is induced by a very few grains of quinine, accompanied by many nervous symptoms, and formication so severe as to prescribe the use of the remedy. In some—and this may occur in cases which had hitherto been normal—cinchonism has not been induced till after the administration of seventy-two grains of quinine. Cinchonism is not peculiar to quinine: by other vegetable febrifuges, such as salicine, augustura bark, and biberine, cinchonism can be induced, but not with the same certainty as by quinine, neither in the same uniform series of phenomena, neither with the same harmlessness. Cinchonism seldom lasts longer than twenty-four hours, except in some cases of anæmia, in which the writer has known it continue upwards of a week. Quinine has been prescribed by the writer to patients of both sexes and all ages, and where ascertainable, almost invariably to cinchonism, during thirteen years, and probably to the extent of several thousand ounces of the sulphate; and during that time he has seen no case of danger from its effects, with the exception of three or four cases of imputed abortion. To many the muffled ears of cinchonism are not even disagreeable. Cinchonism is capable of superseding and suppressing that excited condition of the circulation and animal heat known as fever, except when depending on anæmia, as symptomatic of inflammation, or its effects.

Quinine is purely a febrifuge: instead of being a tonic or stomachic, it generally induces anorexia, and a relaxed and macerated state of the skin, some tremulousness, and in many cases slight aphonia. As a febrifuge the full efficacy of quinine is seldom obtained, unless pushed to cinchonism. Cinchonism is therefore the test and criterion in practice of the full and sufficient use of quinine. It is probable that the protective influence of quinine against fever seldom lasts longer than the manifestation of cinchonism. The ordinary headache of fever does not contra-indicate the use of quinine. The power of quinine seems to be to cut off the connexion between the local irritation and constitution-

al excitement, to disturb and break the series of morbid elaborations set up in some specific fevers, which terminate, for the most part, in contamination of the blood and loss of vital cohesion of the capillaries. In intermittent fever it is antidotal. Quinine is of little efficacy in intermittent fever, when exhibited during the paroxysm. Quinine is of no efficacy in the last stage of continued or remittent fever, where the vascular and thermal excitement have been succeeded by organic lesion or contamination of the blood. It should be given, as is well known, in the intermission of intermittent fever, and the formation or in the first stage of continued remittent or yellow fever. The use of quinine against relapses of intermittent fever, whether the disease has been primary or secondary, is one of the most valuable applications. In using quinine against the paroxysms of intermittent fever, hourly doses of three grains, till twelve doses be given, is the best mode of saturating the system with the remedy. If, however, the disease be a quotidian, with short intermission, six grain doses hourly, till six doses be given, will be judicious practice.

In the other fevers where quinine is eligible, and the remedy is prescribed during the existence of febrile excitement, the dose, to be efficacious, must be large, and the impression on the disease sudden and overwhelming. An auxiliary, too, is also required in such cases: twenty-four grains of quinine and twenty grains of calomel, in one dose, is the most powerful resolvent of fever. One or two such doses, with an interval of six hours, and followed by a castor oil purgative, are generally sufficient: but I have prescribed six such doses with efficacy, and I recollect no instance of pyalism occurring when this treatment was required and adopted, and sometimes there is but mild cinchonism. An intolerance of quinine, or early and intense cinchonism, in such cases, is one of the worst prognostics.

In the treatment of simple intermittent fever, or its relapses, calomel is rarely, if ever, prescribed by the writer. Sulphate and carbonate of magnesia mixture, or sulphate of magnesia and tartrate of antimony mixture, as a purgative during the hot stage, or fifteen drops of solution of acetate of morphine, with a drachm of sweet spirits of nitre, if there is much suffering from muscular pains, headache, or emesis and retching, will speedily remove the paroxysm; and followed by quinine, in combination with purgative doses of rhubarb, will fulfil all the indications for the intermission.

But when an European or North American, probably not long from a cold climate, and during the prevalence of malignant disease, is attacked by fever, and shows to the quick and practised eye alarming indications, no fear of the injurious after-effects of the mercurial will have weight to withhold the resolvent dose of calomel and quinine. In cases threatening danger to life only need it be used, and I know of no instance wherein the slightest untoward result has been experienced from its use.

The combination of quinine with tartar-emetic, in pneumonic and bronchitic complications of intermittent, is eminently successful. The forces which disturb the remedial power of quinine in fever are chiefly inflammatory and congestive complications, or a loaded condition of the alimentary canal. These must be obviated by appropriate treatment, and the disease rendered as simple or idiopathic as possible, concurrent with the use of quinine. Thus arteriotomy may frequently be required in continued, remittent, or yellow fever; and in intermittent, with tenderness over spleen, a blister may be required, as an auxiliary to cinchonism.

There is a form of continued, or irregular remittent fever, occurring chiefly in children or adolescents, in which generally no local cause can be discovered, but which is often imputed to worms; but give what anthelmintics you will, no worms may be passed; hence here they are properly called "stubborn worms." This fever may continue for a week or a fortnight without any contamination of the blood or loss of vital cohesion, and probably depends on intestinal irritation. Danger in these cases chiefly arises from the supervention of some lesion, induced

by the long-continued and excessive heat and violent action of the heart, or sympathetic irritation of the brain. In these cases I use quinine, with immediate and signal efficacy, in the following manner:—

The patient is put into a bath, and the cold affusion is applied till the pulse becomes small, and nearly extinct, at the wrist, and the skin cold. He then, while in the bath, gets his dose of quinine (two or three grains), and is returned to bed without being dried. The bath and the dose of quinine are continued hourly as long as the skin persists warm, when the hourly dose of quinine is due. After five or six baths the skin generally becomes permanently cool, and then the quinine is pushed on to cinchonism, alone, and without the bath. This mode of making an intermission in a continued fever I have never found attended with unpleasant and dangerous consequences, and it will generally subdue the fever after every other method has been tried in vain.

In fever of doubtful origin, and where latent inflammation is expected, I have frequently used a small cantharides blister as a test; in fact, I never like to pass the blistered surface of a patient without inspecting it, its revelations are often so interesting and important. If, instead of the usual vesication of thin serum and cuticle, the vesication is a bladder of fibrinous coagulum, or suety in consistence, inflammatory action is going on, probably in the neighborhood of the part, and tartar-emetic, or such like combinations, are indicated.

Relapses in intermittents have their determinate periods, the day from the last attack being generally some multiple of seven. The usual day of relapse among the acclimatised of this colony is the fourteenth or twenty-eighth. After one or two relapses, the law of each individual case can be ascertained by each patient. The prophylactic which I have adopted with great success, and in my own person first, many years ago, is as follows: Two days before the anticipated relapse, three grains of quinine, to be taken thrice daily for four days; and after a similar relapse interval the quinine to be again taken in the same manner; and so on, repeated three or four times successively. The disease is eradicated completely by thus baffling the relapse.—*Lancet*, September 23, 1848.

V.—Statistics of the Hospitals and the Medical Profession in Paris.

THE administration of the Parisian hospitals employs 2500 individuals, and possesses a budget of from fifteen to sixteen million francs. There are fifteen hospitals, furnishing 7174 beds, and receiving 90,000 patients per annum. Besides these, there are 4 large hospices, and 7 retreats for 8000 aged and infirm persons. More than 100,000 receive *secours à domicile*; and above 25,000 foundlings are provided for. The following are the names and number of beds of the various hospitals:

General Hospitals.		Special Hospitals.	
Hôtel-Dieu	810 beds	St. Louis	825 beds
St. Marguerite	300 "	Du Midi	300 "
La Pitié	621 "	De l'Oisine	300 "
La Charité	494 "	Enfants Trouvés	600 "
St. Antoine	320 "	Maison d'Accouchement	514 "
Necker	329 "	Maison des Cliniques	120 "
Cochin	325 "	Maison de Santé St Denis	150 "
Beaujon	438 "		
Bon Secours	324 "		
De La République	600 "		

A year or two since, some of the Parisian medical journals, alarmed at the constant increase of the numbers of the profession, called aloud for some legislative means of repression. The number of qualified doctors of medicine

steadily increased from 1090 in 1833, to 1442 in 1847; added to which, there were, in this last year, 175 of the lower qualified practitioners, termed *officers de santé*, giving 1617 legalized practitioners for little more than a million souls (including hospitals, garrison, and other unremunerating bodies); while in London we had, at the same period, but 2500 regular practitioners for our two millions. Moreover, the midwives are, in Paris, a numerous body (480 in 1847), absorbing much remunerative practice, which in London, falls to the practitioner. Then, again, classes of persons there resort to hospitals, who here pay for their attendance. If the remaining patients has been equally divided among the 1617 regular practitioners, it was calculated that 150 per annum would fall to each,—the charge for visits being 5, 3, 2 francs or even less, and no bad debts being recoverable at the expiration of a year. One of the effects of the revolution has been, to produce at least a considerable temporary diminution of the numbers. Thus, at the commencement of the present year, there were but 1389, instead of 1442 doctors; the whole number of qualified practitioners diminishing from 1617 to 1555, and that of midwives, from 480 in 1847, to 385. The *pharmaciens* are the only portion of the body-medical who have held their ground, their numbers being 345 in 1847, and 363 in 1849.

Mortality. Of the 1423 doctors at the commencement of 1843, there died 37 during 1843-4; of the 1430 in 1845, there died 50 during 1845-6; and of the 1442 in 1847, there died 53 during 1847-8.—*Rev. Méd-Chir.*, tom. v, p. 61.

VI.—*Extirpation of Ovarian Tumors.*

THE Society has been occupied during its last two sittings with discussions on the nature and treatment of ovarian tumor, but more especially in reference to their removal by ovariectomy. Now are we at this moment in a position to determine the real value of this operation? On one side it was contended that we were in possession of sufficient statistical evidence to show that the operation could be as safely resorted to as any other capital operation in surgery; that the result of the cases published showed the success to be more general than the failure, and that, in fact, we were justified in placing this operation in the category of received proceedings in surgery. It was contended *contra*, that the evidence exhibited by operators themselves and by their friends, warranted no such conclusion; that the cases of successful interference by the knife had not given a reasonable plea for ranking the operation among ordinary ones; that many persons had died after the removal of the tumor: that, in other cases, the abdomen had been cut into, and adhesions of so extensive a kind found to exist, as to preclude the possibility of removing the cyst; again, that on opening the abdominal cavity, no tumor, in some cases, had been found: but above all that the statistics of the operation had been, as far as possible, one-sided; that the journals some time since had teemed with cases of the successful removal of ovarian tumors, while at present, as was well known, many untoward cases had occurred, which had never been revealed. Hence the present statistical evidence was only likely to mislead. The case recorded by Mr. Harvey at a former meeting, showed the difficulty of diagnosis in some cases, and was a valuable contribution to pathology.

Lemon-juice in Rheumatism and Gout.—Dr. Theophilus Thompson had lately employed lemon-juice in rheumatism and gout with marked benefit. He was induced to do so at the recommendation of Dr. G. O. Rees, who had assured him of its usefulness and who had explained its action, by considering that it was the best agent for insinuating carbon into the blood. The first case in

which he (Dr. Thompson) had employed it, was one of subacute rheumatism in a delicate woman. She had all the usual symptoms of the disease, with an irritable, but not inflamed heart. There was profuse perspiration. The disease when he saw her had existed for four days. He gave her half an ounce of lemon-juice, with a little henbane, in about an ounce of camphor mixture, every six hours. In forty-eight hours the pain was much relieved, and the fever abated, and in five days she was well. He had employed it in other cases connected with phthisis in the Hospital for consumption. In some of these cases there were cavities in the lungs, and in these, lemon-juice had been found of great service. He should be induced to try it in almost all cases of rheumatism, but not in true gout. In acute rheumatism, after bleeding, he should also employ it, of course in all cases paying attention to the *primæ viæ*.

Dr. Bowie had tried mineral acids in rheumatic cases at the Consumption Hospital, but was obliged to leave them off. He never saw any benefit from them.

Mr. Seearly had used lemon-juice in gout and rheumatism with much benefit. Dr. Downing was surprised that acids should be of service in rheumatism. He had always found them do harm; even lemon-juice was in urinous. The French authors had lately been writing much in favor of alkaline remedies. They applied alkalies, such as the carbonate of soda, externally, with benefit.

Mr. Hird said, that notwithstanding the success of lemon-juice in rheumatism, he should still be inclined to follow out the old plan of treatment. Tonics were often advisable.

The President said that Dr. Rowland had informed him of a case of calculus in the bladder, in which all remedies failed in affording relief; under a course of lemon-juice the patient got quite well.

Dr. Wiltshire said that he objected to the treatment of cases of rheumatism merely on the chemical theory of altering the condition of blood by chemical agents. The first indication was undoubtedly to correct any disorder of the liver and correlative organs. After this he considered that lemon-juice might be employed.—*London Lancet*.

QUERE?—Did not the henbane and camphor mixture cure the rheumatism in this case?—ED.

VII.—*Chloroform a solvent for Camphor.*

Heretofore, alcohol, ether and turpentine were almost the only fluids known to dissolve camphor; recently however a much more effectual solvent for this useful medicine, has been found in chloroform. Messrs. T. and H. Smith have reported in the *Monthly Journal* that one drachm of chloroform will dissolve *rapidly and completely*, three drachms of solid camphor, and by rubbing up this solution with the yolk of one fresh egg, an elegant emulsion will be formed which may be taken without disgust by the most delicate stomachs.

The three articles thus combined, form doubtless, an excellent anti-spasmodic and anodyne, and may be adapted to a great variety of symptoms. The dose, although not specified in this communication, may, we suppose, vary from 15 to 40 drops, to be repeated.

Part Fourth.

AMERICAN MEDICAL INTELLIGENCE.

I.—*American Medical Association.*

SECOND ANNUAL MEETING.—The Association met in Boston, May 1st. in the Hall of the Lowell Institute.

The President, Dr. Alexander H. Stevens, New York, in the chair.

Dr. J. C. Warren, of Boston, on behalf of the Massachusetts Medical Society, presented to the Association the salutation and welcome of his constituents; after which an address was delivered by Dr. Stevens, in which he dwelt upon the objects and duties of the association, the advantages already derived from it, by the partial reforms which had been commenced in accordance with its recommendations; as well as the great good which must necessarily follow from promoting personal intercourse among members of the profession from various parts of the country, and thus ensuring interchange of sentiments and opinions at stated periods.

The committee of arrangements reported twenty States represented, and two hundred and eight delegates, as registered at ten o'clock the evening previous. The number present, as afterwards reported, was about four hundred and fifty.

The committee on nominations, consisting of one from each State, appointed by the delegates, reported the following officers for the ensuing year, and their nomination was unanimously confirmed. *President*, DR. J. C. WARREN, Mass.; *Vice Presidents*, DR. J. P. HARRISON, Ohio, DR. H. H. MAGUIRE, Va., DR. A. FLINT, N. Y., DR. R. S. STEWART, Md.; *Secretaries*, DR. ALFRED STILLE, Pa., DR. H. J. BOWDITCH, Mass.; *Treasurer*, DR. I. HAYS, Pa.

The committee on nominations were continued, and instructed to nominate the usual standing committees for the ensuing year; and to facilitate their operations, it was requested that the names of suitable persons to act upon these committees should be handed in.

Dr. Condie, of Philadelphia, chairman of the committee on Practical Medicine, presented the annual report. After reading a small portion of it he was interrupted by a motion to refer it to the committee on publication, which after some discussion was carried.

[We cannot refrain from commenting upon the impolicy, to say nothing of the discourtesy, of such a proceeding as this. By establishing a precedent of this kind, one great motive for thus assembling from the distant portions of the Union is abolished, viz; the interchange of sentiments and opinions that arise

from the discussion of the reports. A prominent feature in the organisation of the Association seems to have been lost sight of, to wit, the advancement of the knowledge, and the extension of the usefulness of the profession at large.

If the whole object of the Association be to appoint committees whose reports shall be printed in the transactions without comment, this can be accomplished without the sacrifice of time that now takes place in traveling from remote portions of the country.

Aside from all this, there is a *discourtesy* in thus silencing those who have spent much valuable time in the diligent search after material wherewith to enrich those reports, and it offers but little encouragement to future committees, when they see the labors of their predecessors so coldly received. Neither do we think the matter was mended by the proposition to refer the reports to the committee on publication, previously to their being read in the Association, that they may select such parts as seemed most important, and omit the rest, "cut out" a sufficient amount of work to occupy the Association during a specific season. There are few authors, we imagine, who would quietly submit their bantlings to the unmerciful pruning of a publishing committee, in order that time may be allowed for the effervescence of gaseous debaters. We are credibly informed that several original and important communications were withheld in consequence of the course adopted in relation to the committee on Practical Medicine. It is to be hoped, therefore, that if committees are appointed in the spirit of the organisation of the Association, that in future meetings they will be heard with respectful attention.]

Dr. N. R. Smith, of Baltimore, presented and read the annual report of the committee on Surgery. A large portion of the report was occupied in the consideration of anæsthetic surgery, to which it was entirely favorable. The committee consider it inadmissible to perform a serious surgical operation without the use of chloroform, inasmuch as by it both safety and immunity from pain are secured. Of the two prominent anæsthetic agents, chloroform and ether, the former is preferred, inasmuch as its unfavorable effects, when they do occur, are visible at once, whereas, when ether is used, its consequences sometimes remain long after. Dr. S. thinks he has traced irritative fever to the protracted influence of the latter agent.

Chloroform is the most powerful anæsthetic agent known, and requires that care should be used in its administration. It should never be used in trivial cases, nor in diseases of the heart: a due admixture with atmospheric air is also requisite for safety. In careful hands it is an invaluable agent. The author of the report has administered it *thirty-four* times to one patient, a young woman, to the extent of complete insensibility, without any unpleasant result. Prof. Mott, of New York, has performed operations which he would not have attempted without the aid of chloroform. In the administration of it, it should be stopped the moment that insensibility occurs. Prof. Simpson has published his opinion that one hundred lives have been preserved by the use of chloroform, where one has been lost by its use. He further states, that the mortality where chloroform is used, is much less than in similar cases where its use is dispensed with.

On the subject of Fractures, the report was also voluminous: this department was occupied mainly, however, with the exhibition and explanation of an apparatus for the treatment of fractures of the lower extremities, invented by the chairman. As this has been known for some years to the profession, and has been used in many of our public

institutions, a description of it is unnecessary. The same is true of the instrument exhibited for the operation of lithotomy. The latter is, moreover, open to the objection that it almost supersedes the necessity for a correct knowledge of surgical anatomy.

The entire report was listened to with marked attention, and referred, without discussion, to the committee on publication.

Dr. C. R. Gilman, of New York, acting chairman, presented and read the annual report of the committee on Obstetrics.

The greater part of this report was also occupied in the discussion of anæsthetics in midwifery; and in order to present the subject candidly to the Association, the principal objections of those opposed to its use were incorporated into the report. The committee give it as their deliberate opinion, that the chances of a patient's recovery are greatly increased by the use of anæsthetics, and the question is not whether they may or may not be safely administered, but whether they *can be rightfully withheld*. Who that has ever compared the panting and exhausted subject of an instrumental labor, with the calm and tranquil recipient of anæsthesia, could fail to arrive at the same conclusion? In regard to the choice of anæsthetics, the report declares that chloroform has every advantage over ether, except *in point of safety*, but that in experienced hands this objection does not obtain. Dr. Channing's contribution to the literature of this subject, in his work "Etherization in child-birth," received a justly deserved and flattering notice in this portion of the report. The report was accepted, and referred without comment to the committee on publication.

Dr. J. P. Harrison, of Ohio, presented and read the annual report to the Committee on Medical Literature. The report embraced the division marked out by the constitution, viz :

First. The general character of medical periodical literature in the United States.

Second. A consideration of the most important and prominent articles that are thus brought to our notice.

Third. Original or native American medical publications.

Fourth. Medical compilations and compends of American writers.

Fifth. American reprints of foreign periodical medical books.

Sixth. All such measures as may be deemed advisable for encouraging and maintaining a medical literature of our own.

Under the first head, the report states that there are twenty American medical journals published in the United States, and four reprints of foreign journals. Of these, five are quarterlies, six are issued bi-monthly, six monthly, one three times a year—the Transactions of the Philadelphia College of Physicians—and one weekly.

Through the agency of these journals much valuable material has been added to the medical literature of the country, and their pages have been enriched by contributions from the most eminent members of the profession both at home and abroad.

Of the American contributions a brief summary was embraced in the report.

The library of the Pennsylvania Hospital was described as the largest in the country. Commencing originally in 1762, by the donation of a single volume by Dr. Fothergill of London, it has increased to the

extent of ten thousand volumes. There are many other extensive libraries throughout the country, some containing seven thousand, others three thousand, and two thousand volumes. The library of Harvard College numbers one thousand seven hundred and sixty-nine volumes; that of the medical department of Harvard University twelve hundred volumes.

That portion of the report embracing the measures deemed advisable for encouraging and maintaining a medical literature of our own, stated that there was much valuable literary material unknown to the public in consequence of deficient means on the part of the authors, or a disinclination on the part of publishers to take hold of anything that was not endorsed by a well known name, and instanced the unpublished literary remains of the late Dr. Forry, of New York. It recommended that a board of publication should be established, to whom such materials should be presented, with authority to publish them should they be deemed worthy.

Appended to the report was the following resolution:

Resolved. That a committee of three be appointed to take into consideration the measures recommended in this report, for the promotion of our national medical literature, with instructions to report at the next annual meeting.

The report of the Committee on Medical Literature was accepted, and referred to the committee on publication, and the resolution appended to it was adopted; Drs. Horner, Condie, and Hays, of Philadelphia, were appointed the committee.

Dr. G. B. Wood, of Philadelphia, moved that it be the duty of the same committee to report on the subject of an international copy-right law.

In urging this motion Dr. Wood remarked, that it was essential to the medical literature of the country, that an international copy-right law be established. He claimed it for our own writers, who now receive no encouragement. American publishers can now procure and reprint foreign books for a less price than American authors can afford to write them. They must produce a better book, a great deal better book than the English writer, or they cannot find an American publisher who will pay them for their work. He claimed it also on the ground of justice to English writers, who were despoiled of the labor of their head and hands by the cupidity of our booksellers.

The motion was *carried*.

Dr. M. L. Taft, on behalf of Dr. F. C. Stewart, of New York, chairman of the Committee on Medical education, presented and read the annual report, which, in accordance with the requirements of the constitution, embraced a complete account and comparison of the medical institutions of Europe and this country, with the requirements for admission and graduation; the number of students, graduates, professors, branches taught, terms of study, &c.; the regulations and requirements of Army and Navy Boards of Examiners in Great Britain and this country; the legal requirements exacted of medical practitioners in the several States of the Union; together with remarks on the general condition of medical education in the United States, compared with other countries, with suggestions as to its improvement.

In the comparison of schools abroad and at home, the University of Pennsylvania was held up as a model for imitation in the United States, that institution being the oldest, and coming nearest to the standard deemed most desirable. The report further stated that to the inquiries addressed to the thirty-seven medical schools in the United States, in relation to the requirements for admission, graduation, &c., answers have been received from twenty-five.

With regard to the best method of improving medical education, the report recommended the insisting upon preliminary education, and the appointment of primary boards of examiners, whose certificate of qualification shall be essential to the reception of the student into a medical school. The board should examine the candidate (should he not be a graduate of some literary institution) upon Latin and Greek, and require suitable testimonials as to moral character. The subject of the extension of the lecture term was not alluded to in the report, probably because the Association had already settled that question affirmatively.

Dr. John Ware, of the Medical department of Harvard College, presented a paper in answer to the queries of the Committee on Education, from a Committee of the Faculty who were appointed to take into consideration some of the recommendations of the Medical Association with regard to medical lectures, particularly in reference to extend ing the courses of lectures, beyond the established period of four months. The purport of the paper was that the Faculty were constrained to differ from views of the Association with regard to the prime importance of lectures, and also that in their views no profitable object could be gained by extending the term of lectures beyond a period of four months. Lectures are a subordinate and subsidiary part of a medical education. The great object in view from them is to teach the student how to study for himself. The paper did not undervalue the importance of medical lectures—far from it. Information was communicated through these sources which would not be acquired any other way, but it was desirable that they should take their proper place in the education of students. It regarded the establishment of private Medical Schools in our cities as of very great importance.

A series of resolutions was appended to the report, upon which considerable discussion arose. The report of the committee was accepted and referred to the committee on publication, and the resolutions were brought separately before the Association in committee of the whole.

The following are the resolutions which were appended to this report:

1. *Resolved.* That the attention of Medical Colleges be again directed to the resolutions of the Committee on Preliminary Education adopted by the Medical Convention of 1847, and that they be advised to require from students that they shall in all cases, produce certificates of preliminary education. *Carried.*

2. *Resolved.* That the several State and County Societies, as well as all voluntary Medical Associations throughout the country be advised and requested to adopt the plan proposed by the Medical Society of the State of New York, at its last annual meeting, for ensuring due attention to the subject of preliminary education.

Dr. Davis, of New York, explained that the plan of the New York State Society was, that every County Society should appoint a board for preliminary examination of students, with a view that they should

be required to produce certificates from such boards before they could be received as medical students in the office of any private medical practitioner.

A gentleman, whose name we could not learn, offered the following as an amendment.

Resolved. That as students are generally introduced to the profession by private preceptors, it is recommended that no student be received by them unless they come up to the standard of preliminary education prescribed by this Association.

The question being upon the amendment, it was adopted by a large vote.

3. *Resolved.* That this Association does not sanction or recognise "College clinics" as substitutes for Hospital clinical instruction, and that the Medical Colleges be again advised to insist, in all instances where it is practicable, on the regular attendance of their pupils during a period of at least six months upon the treatment of patients in a properly conducted Hospital or other suitable institution devoted to the reception and care of the sick.

The resolution was adopted.

4. *Resolved,* That it would conduce both to the convenience and advantage of students, if the subjects taught in the Colleges were divided into two series: the one of which should be studied during the first year's attendance on lectures; and the other, during the second session. And that examinations should be substituted at the close of the first course of lectures on the subjects taught during that course, certificates of which should be required prior to the final examination. Rejected.

5. *Resolved,* That it is the deliberate opinion of this Association, that the plan of examining students for medical degrees in private, and before one professor only at a time, is highly defective, and should be at once discontinued. Laid upon the table.

6. *Resolved,* That examinations for medical degrees should be practical, and that it is desirable as far as practical that they should be conducted in writing, as well as *viva voce*. Laid on the table.

7. *Resolved,* That in view of the importance of a due knowledge of practical pharmacy, the medical schools be advised to require from candidates for degrees that they should produce satisfactory evidence of their having been engaged in compounding medicines and putting up prescriptions, either under the direction of their private preceptors, or in the shop of a recognised and qualified apothecary. Laid upon the table.

In regard to examining boards and licenses:

8. *Resolved,* That the interests both of the public and the medical profession, would be promoted by the establishment of boards of examiners in each of the States of the Union, to examine candidates for licenses to engage in the active practice of medicine and surgery. Laid upon the table by a vote of 69 to 54.

9. *Resolved,* That the standard of requirements established by the examining boards of the several states, should be uniform, and that the examinations should, as far as practicable, be conducted in a similar manner. Laid upon the table.

Resolved, That the examiners should, in all instances, satisfy themselves that candidates are familiar with the elementary branches of general knowledge. Laid upon the table.

11. *Resolved,* That for the purpose of carrying out the objects contemplated in the foregoing resolutions, a special committee of seven members be appointed to prepare a memorial and form of law in reference to the subject of the establishment of boards of medical examiners to be submitted to the Association at its next annual meeting. Indefinitely postponed.

The committee of the whole having thus considered the resolutions submitted to them by the report on medical education, arose and reported to the Association, and their action was confirmed.

On motion of Dr. Stevens, of New York, it was voted, That the whole subject matter of medical education, together with the resolutions which have been passed, and those which have been laid upon the table, be referred to a special committee of three members, with instructions to report to-morrow morning. The chair appointed Dr. Stevens, of New York, Dr. Wood, of Philadelphia, and Dr. Knight, of Connecticut, as the committee.

The following is the report of that committee :

1st. *Resolved*, That the Association reiterate their approval of the resolutions in reference to medical education, adopted by the Convention, which met in Philadelphia, in May, 1847, and contained in pages 73 and 74 of the published proceeding of that Convention..

2d. *Resolved*, That the attention of Medical Colleges be again directed to the Resolutions of the Committee on Preliminary Education, adopted by the Medical Convention of 1847, and that they be advised to require from their students that they shall, in all instances, present certificates of due preliminary acquirements prior to graduation.

3d. *Resolved*, That physicians, generally, throughout the Union, be advised and requested to require of those wishing to become their pupils, evidence of a proper general education, before admission into their offices.

4th. *Resolved*, That the Association does not sanction or recognise "College Clinics" as substitutes for Hospital clinical instruction, and that the Medical Colleges be again advised to insist, in all instances, where it is practicable, on the regular attendance of their pupils, during a period of six months, upon the treatment of patients in a properly conducted hospital, or other suitable institution, devoted to the reception and cure of the sick.

5th. *Resolved*, That in accordance with a resolution of the American Medical Association, adopted May 4th, 1847, "it is earnestly recommended to the physicians of those States in which State Medical Societies do not exist, that they take measures to organise them before the next meeting of this Association."

6th. *Resolved*, That the State Societies be recommended, after they shall have been organised, to recognise as regular practitioners none who have not obtained a degree in medicine, or a license from some regular medical body, obtained after due examination.

7th. *Resolved*, That the Association recommend to the various Schools of Medicine to meet at Cincinnati before the next annual meeting of this Association, and present a plan for elevating the standard of medical education to this Association.

The committee do not deem it expedient that the Association should now adopt, further than may have been done in the preceding resolutions, the recommendations offered in the several documents referred to them.

On motion of Dr. Harrison, the report was accepted, and the Association went into committee of the whole, Dr. R. D. Arnold in the chair, for the purpose of considering the resolutions attached to the report. These were taken up successively, and, after prolonged discussion, were reported to the Association without amendment, but with the addition of the following, proposed by Dr. T. E. Bond, Jr., of Maryland.

Resolved, That this Association recommend the encouragement of private medical institutions, strongly advising that Dispensary practice be made, as far as practicable, a part of the means of instruction.

The resolutions reported by the Committee of the whole were then adopted.

The annual report of the Committee on Hygiene, Dr. Jas. Wynne, of Baltimore, Chairman, was, in his absence, presented and read by Dr. Isaac Parrish, of Philadelphia.

Appended to this report were two able and interesting papers, one presented and read by Prof. S. Jackson, of Philadelphia, on the influence of tea and coffee used as food; and one by Dr. Josiah Curtis, on the Sanitary Condition of Massachusetts.

The report and the papers were accepted, and referred to the Committee on Publication.

The annual report of the Committee on Indigenous Botany was presented by the Chairman, Dr. N. S. Davis, of New York. The report (of which a verbal synopsis only was given) stated that our acquaintance with the medicinal properties of our indigenous plants was very slight and unsatisfactory. The committee, during the past year, had been making careful investigations, both by analysis and experiment, to discover the actual value and precise action of a number of substances admitted into the materia medica, concerning which the books gave no satisfactory account. As illustrative of this, he stated that of 1000 plants, reputed to possess medicinal virtues, but 150 are even slightly known. Of 280 native and naturalised plants mentioned in one of our best works on botany, we are told, concerning 150 of them, merely that they have been employed by the Indians for such and such purposes. This kind of information was not such as the present state of scientific accuracy demanded. Very little is known of the real virtues and uses of our native plants, but it is hoped that the investigations which have been commenced, under the auspices of the Association, will be continued and perfected.

The report was accepted and referred to the Committee on Publication. The Committee appointed to consider the subjects presented by the report on Medical Literature, and the resolution of Dr. Wood, obtained permission to report *in part*, and submitted the following resolution.

Resolved, That a committee of three be appointed to memorialise Congress in favor of an international copy-right law.

This was so far amended as to require the proposed committee to prepare a memorial upon the subject, and submit it to the Association at its next annual meeting. The motion as amended was *adopted*, and Drs. G. B. Wood, T. E. Bond, I. Hays, were appointed as the committee.

The following preamble and resolution, presented by Dr. Evans, of Indiana, were adopted.

Whereas, Merit should be the test by which one individual is preferred to another; and *whereas*, the places of profit and honor in our profession should be open to the competition of all, in order that the best selections may be made, therefore,

Resolved, That Trustees and others, exercising the office of appointing Professors in Medical Schools, be requested to adopt the system of *concours*, or public trials, among the means resorted to for calling out the talent of the profession, and ascertaining the qualifications of applicants.

Dr. G. B. Wood submitted the following preamble and resolution, which were adopted.

Whereas, A document prepared by the Medical Faculty of Harvard University, and appended to the Report of the Committee on Medical Education, contains an elaborate defence of the limitation of the course of medical instruction in the schools to four months; and *whereas*, this document has been received, along with the Report of the Committee on Medical Education, to the Publishing Committee, and, if it be not initiated by the public as a representation of the views of this Association, may at least, have the effect of contravening those views, unless they be properly supported; therefore,

Resolved, That a committee be appointed to prepare, at leisure, a statement of the facts and arguments which may be adduced in favor of the prolongation of the courses to six months; and that the statement thus prepared be printed in the forthcoming volume of the Transactions of the Association.

Drs. S. Jackson, (Prof.); J. L. Atlee, and A. Stille, were appointed the committee.*

Dr. U. Parsons, from a Select Committee appointed at the meeting of 1848, made a report on the subject of adulterated and spurious drugs, and offered the following resolutions.

Resolved, That a committee, consisting of two delegates from each State here represented, be chosen by the President, to note all the facts that come to their knowledge with regard to the adulteration and sophistication of drugs, medicines, chemicals, &c., and to report them at the next annual meeting.

Resolved, That the President be requested to sign, and forward to the Philadelphia College of Pharmacy, a letter, stating that the Association are pleased to hear of its laudable intention to prepare and publish some simple directions for detecting adulterations in medicines, adapted to the understanding of the people generally, and would be highly gratified could they welcome its appearance before the next annual meeting.

* In a notice of the proceedings of this meeting of the Association, in the Boston Medical and Surgical Journal for May 16, the author remarks as follows, in relation to this resolution of Dr. Wood.

"It has been thought this resolution, as it appears in the Transactions of the Association, will bear upon the endorsement of the Association. It is obvious it will do this no more than will Dr. Ware's paper, which we have seen has been appended to the report on Education. They simply state the opinions of members of medical faculties in Pennsylvania and Massachusetts, and for which the Association is in no sense responsible."

The paper presented by Dr. Ware was prepared in answer to the queries of the Committee on Education, and delivered to them after the Association had met, and was permitted to be read in connection with their report. By an act of courtesy, this paper, which was in direct opposition to the published views of the Association, was admitted into the Transactions.

It was in order to counteract the opinion that might arise from seeing this paper in the published Transactions, that the Association had undone all that it had formerly decided upon in relation to the six months course, that Dr. Wood's resolution was off red, and a committee appointed to prepare a statement of facts and arguments in favor of the prolongation of the lecture term, to be published, along with Dr. Ware's paper.

This committee, then, which was appointed to sustain the views of the Association in relation to a matter upon which it had already decided three times, will most certainly, bear upon it the enforcement of the Association, so far as the expression of its opinion goes. All that it shall do, in the legitimate performance of its duties, will be by the authority of the Association, and cannot, therefore, be considered as a mere expression of the opinions of members of medical faculties in Pennsylvania.—Eds. Ex.

Dr. Ware submitted the following resolution, which was adopted.

Resolved, That the Committee on Practical Medicine be instructed to inquire into the expediency of adopting the English language exclusively in the writing of prescriptions, and in all directions for the composition and administration of medicines, and to report at the next annual meeting of the Association.

Dr. G. B. Wood, of Philadelphia, stated that he had a brief report to make, as a delegate from this Association to the British Association, and to the Provincial Medical and Surgical Association of England, the annual meetings of which he had attended in August last, in fulfilment of the objects of his appointment. Of the British Association he had only to say, that he was treated with all personal courtesy, and invited to participate in the proceedings of that body with the privileges of a member. By the Provincial Medical and Surgical Association he had been received with the most flattering distinction in his capacity as a delegate. The Association appeared to be much gratified by the compliment paid them, and expressed, through their President, their high appreciation of this Society, and their reciprocation of the sentiments conveyed to them; and passed a resolution, unanimously, requesting him (Dr. Wood) to convey their thanks to the American Association.

Dr. J. B. Johnson, of Missouri, introduced the following preamble and resolution, originally presented by him to the Medical Convention at Philadelphia, in 1847, and they were referred to the Committee on Medical Education.

Whereas, Numberless and important evils result from the almost universal practice of allowing persons, wholly ignorant of drugs and medicines, to engage as Apothecaries; and still greater, from the universal traffic in patent and secret remedies; therefore,

Resolved, That the Committee on Education inquire into the expediency of establishing a school or schools of Pharmacy in the respective States, for the special purpose of preparing persons for the business of Apothecaries; and also the expediency of adopting a rule, that no Physician ought to patronise a Druggist or Apothecary who deals in patent and secret medicines—and report at the next annual meeting of the Association.

Dr. James Wood, of Pennsylvania, presented the following resolution, which was *adopted*.

Resolved, That the Committee on Medical Science for 1849, be instructed to inquire into the expediency of establishing a Board to analyse the quack remedies and nostrums now palmed upon the public, and to publish the results of their examinations in a newspaper to be established for the purpose; and further, to append such plain views and explanations thereto, as will enlighten the public in regard to the nature and dangerous tendencies of such remedies.

Dr. Stevens, of New York, offered the following resolution:

Resolved, First, that a committee of seven be appointed to consider the subject of forensic medicine; second, a similar committee on indigenous botany and materia medica; and third, a committee on hygiene;—the committees to be nominated by the general Nominating Committee. Carried.

The Committee on Nominations reported the following Standing Committees, to act for the ensuing year. *Adopted*. The list is as corrected by the nominating Committee, after the vacancies created by resignation had been filled.

Committee on Medical Science.—Dr. Usher Parsons, Providence, R. I., Chairman. Drs. J. Bigelow, Boston; J. B. S. Jackson, Boston; A. B. Malcolm, Dubuque, Iowa; James Moultrie, Charleston, S. C.; G. Emerson, Philadelphia; D. King, Newport, R. I.

Committee on Practical Medicine.—Drs. J. K. Mitchell, Philadelphia, Ch'n. Drs. R. La Roche, Philadelphia; F. West, Philadelphia; J. A. Sweet, New York; J. B. Jones, New Orleans; R. D. Arnold, Savannah; ——— Smith, Indiana.

Committee on Surgery.—Dr. R. D. Mussey, Cincinnati, Chairman. Drs. W. A. Awl, Columbus, Ohio; A. B. Shipman, Syracuse, N. Y.; G. Fox, Philadelphia; L. A. Dugas, Augusta, Ga; S. Parkman, Boston; J. R. Wood, New York.

Committee on Obstetrics.—Dr. T. G. Prioleau, S. C., Chairman. Drs. L. D. Ford, Augusta, Ga.; Robert Leiby, Charleston, S. C.; Josiah Bartlett, Strattan, N. H.; H. F. Askew, Wilmington, Del.; John Evans, Chicago, Ill.; Isaac Lincoln, Brunswick, Me.

Committee on Medical Education.—Dr. J. Roby, Baltimore, Md., Chairman. Drs. Blatchford, Troy, N. Y.; G. M. C. Roberts, Baltimore; R. W. Sylvester, Norfolk, Va.; F. A. Ramsay, Knoxville, Tenn; Geo. Sumner, Hartford, Conn.; W. F. Rockwell, Brattleboro, Vt.

Committee on Medical Literature.—Dr. Alfred Stillé, Philadelphia, Chairman. Drs. F. G. Smith, Philadelphia; T. H. Yardly, Philadelphia; P. C. Gaillard, Charleston, S. C.; N. T. Morris, Montgomery, Ala.; J. Fithian, Woodbury, N. J.; J. B. Johnson, St. Louis, Mo.

Committee on Publication.—Dr. I. Hays, Philadelphia, Chairman. Drs. A. Stillé, Philadelphia; H. J. Bowditch, Boston; D. F. Condie, Philadelphia; B. T. Barker, Norwich, Conn.; Isaac Wood, New York; M. J. Pittman, Rocky Mt., N. C.

Committee on Forensic Medicine.—Dr. A. H. Stevens, N. Y., Chairman. Drs. Luther V. Bell, Boston; Pliny Earle, New York; W. F. Rockwell, Vt.; Robert Watts, New York; R. S. Stewart, Baltimore; J. Knight, New Haven, Connecticut.

Committee on Indigenous Botany and Materia Medica.—Dr. Eli Ives, New Haven, Chairman. Drs. G. L. Corbin, Warwick Co. Va.; H. R. Frost, Charleston, S. C.; W. H. Davis, Baltimore; B. B. Lenoir, Roane Co. Tenn.; W. B. Cochran, Middleburg, Va.; J. P. Harrison, Cincinnati.

Committee on Hygiene.—Dr. J. M. Smith, N. Y., Chairman. Drs. A. K. Gardner, New York; E. Jarvis, Dorchester, Mass.; A. G. M. Cooke, Norfolk, Va.; A. S. Holmes, St. Louis, Mo.; G. Emerson, Philadelphia; J. C. Simonds, New Orleans.

The committee recommended Cincinnati as the next place of meeting, and the following as the Committee of Arrangements:—Dr. Dodge, Dr. Judkins, Dr. Rives, Dr. Lawson, Dr. Richards and Dr. Strader, all of Cincinnati.

On motion a vote of thanks was presented to the Officers of the Association for the efficient and courteous manner in which they had discharged their duties, and to the Committee of Arrangements for their kind and hospitable reception of the delegates. Dr. Z. B. Adams responded on behalf of the Committee of Arrangements; and, after receiving the congratulations of the President upon the happy termination of their labors, the Association adjourned on Friday evening, May 1th, *sine die*.

We have thus endeavoured to present to our readers a condensed account of the proceedings of the Association, derived from the various reports of the daily press, and from notes taken on the spot by one of the Editors.

To all engaged in it we are sure the meeting was a pleasurable one, and indicated a growing interest in the means proposed to elevate the standard of the profession. The number of delegates was very much larger, and the session protracted to a greater length, than on any previous occasion, and yet nothing occurred to mar the harmony of the meeting; a conciliatory spirit seemed to pervade the whole proceedings. The brief analysis of the Reports, given above, is but a feeble expression of their merits; we trust, however, at some future time to do them more justice. The only regret experienced in relation to them was, in reference to their curtailment, on which we have already commented.

To the Physicians of Massachusetts in general, and to the Committee of Arrangements in particular, the thanks of the Association are most justly due for their great kindness and liberality. We are sure that no delegate can ever forget them.—*Medical Examiner.*

II.—*National Convention for revising the Pharmacopœia of the United States.*

The Convention for revising the Pharmacopœia, which met in Washington in January, 1840, adopted the following resolutions:

"1. The President of this Convention shall, on the first day of May, 1849, issue a notice requesting the *incorporated State Medical Societies*, the *incorporated Medical Colleges*, the *incorporated Colleges of Physicians and Surgeons*, and the *incorporated Colleges of Pharmacy*, throughout the United States, to elect a number of delegates, not exceeding three, to attend a general Convention, to be held at Washington, on the first Monday in May, 1850.

"2. The several incorporated bodies thus addressed, shall also be requested by the President, to submit the Pharmacopœia to a careful revision, and to transmit the result of their labors, through their delegates, or through any other channel, to the next Convention.

"3. The several Medical and pharmaceutical bodies shall be further requested to transmit to the President of the Convention, the names and residences of their respective delegates, as soon as they shall have been appointed, a list of whom shall be published, under his authority, for the information of the medical public, in the newspapers and medical journals in the month of March, 1850.

"4. In the event of the death, resignation, or inability to act, of the President of the Convention, these duties shall devolve on the Vice President, and, should the Vice President also be prevented from serving, upon the Secretary or Assistant Secretary, the latter acting in the event of the inability of the former."

In compliance with the foregoing resolutions, the undersigned, having been informed by the President of the late Convention, Dr. Lewis Condict, that he would be unable, from indisposition, to perform the duty assigned to him, gives notice to the several medical and pharmaceutical bodies enumerated in the first resolution, that a convention for revising the national Pharmacopœia will meet in the city of Washington, on the first Monday in May, 1850.

The undersigned also requests of the several bodies referred to, that they will fulfil the wishes of the Convention, as set forth in the second resolution; and, further, that they will transmit to his address, on or before the first of March next, the names and residences of the delegates whom they may appoint, in order that a list of them may be published, as directed in the third resolution.

GEO. B. WOOD, M. D.,

Vice President of the Convention of 1840.

PHILADELPHIA, May 1st, 1849.

III.—*Fees to Medical Men for Services rendered the State in Criminal Cases.*

We copy with much satisfaction, from the May number of the *Philadelphia Medical Examiner*, the subjoined communication in relation to the settlement of a question, involving the interests, and to a certain extent, the honor of the profession. We, in this section of the country, and in common with many of the profession, have had reason to complain of the gross injustice done us by the courts in withholding all remuneration for important services rendered the State, both in criminal and other prosecutions. This matter, our readers will perceive, has been recently rectified in Pennsylvania, and hereafter medical men are to be rewarded, in that State, for such services. But to the communication:—*Ed.*]

"Will you spare me a corner in your valuable Journal, to make known the final settlement, recently, of a case involving the legal rights of physicians to charge for professional services rendered the Commonwealth as witnesses in criminal cases? The establishment of this claim is a matter of interest and importance to the profession. About nine years since, Dr. J. M. Wallace and myself examined, at the instance of the Coroner, the body of a child who had died, as was alleged, from the effects of poison administered by a servant in the family. The chemical analysis of the contents of the *primæ viæ* was conducted at the expense of much time, labor, and material, by Dr. R. E. Rogers, then living in Philadelphia, and upon the trial we were all examined as medical witnesses, to prove the existence of the poison. Proper bills for the service, exclusive of ordinary witness-money, were rendered at the time to the prosecuting officer of the court, and by him endorsed to the County Commissioners for settlement. Payment, however, was refused, not from any indisposition, it was said, to compensate us for the services, but simply from a supposed want of proper legal authority to do so. The claim, consequently, was pushed no further until a late decision of the Supreme Court, in a similar case, had settled the point, that professional service rendered at the instance of a proper legal officer, was entitled to special compensation by the county. In conformity with this decision, an appropriation was lately made for the settlement of our bills.

Heretofore, medical men have been subjected to much labor and vexation in medico-legal cases, without receiving any pecuniary compensation, the legal tribunals, like the public generally, expecting that physicians would of course always be willing in such cases to render their professional services gratuitously.

For the future, however, it should be understood that the law *must pay* when it needs a medical opinion in order to promote the ends of justice, and every one will see at once the indispensable necessity of such testimony in trials for murder, charged to have been committed by means of poison. It is high time, we

conceive, that the profession had taken a firm stand in defence of its just claims to remuneration, not only by courts of Justice, but in other quarters also, where its charities are so liberally appealed to; more especially, too, as its members are liable to be mulcted in heavy damages upon charges of neglect merely; and we trust, therefore, that a *reform* in this, as well as in other matters, will not be indefinitely postponed.

Yours, &c.,

FRANCIS WEST.

Philadelphia, April 6, 1849.

[We endorse the above with all our hearts, more especially as we too have been sufferers in circumstances nearly similar. It is indeed high time that the medical profession were looking after their own interests in these matters, and in every instance where professional opinions and valuable time are demanded for the purpose of justice, that they should insist upon proper remuneration for their services. Medical witnesses are not only called upon to render time and learning to further the ends of justice, but are obliged often to submit to the impertinent badgering and cross-examinations of counsel, very frequently more for their own amusement and the display of their little smattering of medical knowledge, than for any positive advantage that may accrue to the case under trial.

We hope, therefore, now that the precedent is established, that no medical witness will fail to claim and sue for proper remuneration for services rendered.—EDS. MED. EX.]

IV.—*Patent and Secret Medicines.* By PROF. BUTTERFIELD—Editor of the *Ohio Medical and Surgical Journal*.

It is amusing as well as melancholy, to read in the public newspapers, the advertisements of the unprincipled dealers in secret medicines. Assurance, impudence and falsehood can scarcely go further. One would suppose that the public, seeing so many and such contradictory statements and promises, would have at least as much sense as the negro, when told that Jonah swallowed the whale, that they would discredit them all; but no, the more falsehoods that can be crammed into a small space, the more noisy and importunate the quack or the vender, the more oily do their throats become, and, like Oliver, they are constantly "asking for more."

Take up almost any newspaper, and observe how large a portion of its columns is prostituted to the unholy purposes of deception and humbug. Several lie before us. Let us examine one or two. The first is a leading daily paper of considerable circulation and influence. It contains in all twenty columns, fifteen of which are devoted to advertisements of all descriptions. Of these fifteen columns, about two and a half herald the praises and sound the virtues of quack medicines, and this is rather less than the usual proportion. First, we have "Ten reasons for using Dr. *Bragg's* (a capital name,) sugar coated pills."—then "A good medicine," next "Be wise in time, 'tis folly to defer:—"—"Vegetable vs. Mineral," "Read, mark and partake," (especially the partake!) and so on.

The next paper is a weekly from one of the principal cities of Massachusetts. Although they *brag* enough there, in all conscience, we do not know that *Doctor!* (save the mark!) *Bragg* has extended his operations so far. Though the whole world, the medical faculty included, are generally convinced of the transcendently miraculous power of numerous nostrums, it is only now and then that one pushes its way beyond a comparatively limited circle. The paper referred to has twenty-eight columns, only nine of which contain advertisements, and over four of these are paid for by nostrum mongers. There is old Townsend with

his Sarsaparilla, belaboring young Townsend and his Sarsaparilla. There is young Townsend's "Tricks of Quacks," and old Townsend's "Reply to Tricks of Quacks." They each make the other out a precious villain, and we believe them both. Then there is "Consumption cured" and "Fits! fits!" in a black ground like a coffin. Ten-thousand persons have been cured by one remedy, and ten-thousand more are *wanted* to be cured by all the rest. So it goes---a regular trade of humbug and cheaterly---and otherwise respectable men are found in every community, ready for money to lend themselves to the fraud.

There is one establishment in Columbus for the the exclusive sale of patent and *family* medicines. We like this plan. Isolate the business. Respectable druggists should have nothing to do with it. Let it be by itself, and the very multiplicity of its cure-alls and flaming hand-bills become suspicious, as well as ridiculous. We suppose that some honest men engage, thoughtlessly, in this highly dishonest and disreputable traffic;---we suppose that more don't think of or care for, consequences, if the money comes,---but for ourselves, there is no honest calling, however humble or degraded, that would not be preferred.

We hope to see the time, and that shortly, when every druggist who deals in secret nostrums, will be shunned by our profession, and left to depend upon the patronage he prefers.

V.—*Case of Occlusio Vaginæ Complicating labor.*---By PROF. C. R. GILMAN, M D.—Dr. Gilman reported a case of nearly perfect occlusion of the vagina in a parturient woman. She was first seen by him, in consultation with Dr. Cooper, in labor with her second child, the waters had escaped some hours before, the pains forcing. On examination per vaginam, the head was found to occupy the pelvic cavity, but to be covered by a pretty firm, dense membrane, which, starting from the anterior vaginal wall, low down, and near the meatus, passed backwards and somewhat upwards, so as to form a cul de sac, an inch or less deep, near the sacrum. This membranous covering appeared smooth, uniform, and no opening could be found in it. An opening there certainly was, as the liquor amnii had escaped, and after a careful and somewhat prolonged examination, a small dimple was detected near the meatus, into this a probe was first introduced, and then a bistouri, with which the membrane was freely severed by crucial incisions. The head was now plainly felt external to the os uteri---its advance was rapid, and the delivery was completed in two hours. From inquiries subsequently made, it appeared that the first labor had been very difficult and painful; that coition had since been painful. Still impregnation had taken place. Dr. G. alluded to another case where impregnation had taken place, and the occlusion was so nearly perfect that with the aid of sight and touch he was utterly unable to find any opening to a cul de sac less than an inch deep. In that case the labor overcame the occlusion. The mal-formation was supposed to be congenital.

—*New York Journal of Medicine.*

VI.—*New York Journal of Medicine.*---This excellent and valuable bi-monthly has just closed the twelfth volume, (the second of the new series,) with the type and general dress of the last, or May number, somewhat changed and improved. Such evidences of prosperity in a medical periodical, are well calculated to stimulate those who have felt themselves called upon to engage in the laborious occupation of conducting a journal. Our New York contemporary always occupies a conspicuous place on our table, and its prosperity gives us unfeigned satisfaction. It usually contains a great variety of interesting original matter.

VII.—*Trismus Nascentium*.—A correspondent from Alabama writes us that he has seen several cases of Tris. Nas. recently in his practice, and notwithstanding the favorable reports of the success of Dr. Sims' plan of treatment of this affection, he has not succeeded in a single instance out of four cases.

These four, he subjected to the plan of treatment advised by Dr. S., and if the fourth was relieved by art, it was due "to the external and internal use of chloroform."

Our correspondent furthermore says, "that the chronic spasms, (attendant upon this disease) may be produced with equal facility by pressing on the *great toe* as on the *occiput* or *parietal* bones."—This being a diagnostic symptom of the seat and cause of the disease, according to the views of Dr. Sims—we acted upon the theory of Dr. S. in a case recently under our charge, but failed to give relief. If Dr. S.'s explanation of the cause of the disease be correct, how comes it, that the disease is sometimes epidemic?—ED.]

VIII.—*Tincture of Nux-Vomica in Cephalalgia*.—Dr. Hawly of Ithica, New York, speaks in high terms of the value of "this medicine in cephalalgia and sick headache." He reports in the *Buffalo Medical Journal* that he has used the tincture of nux-vomica with much success in that form of headache, of a neuralgic character. He gives it during the paroxysms in doses of ten and fifteen drops, three times daily, and continues it for two or three days. The above facts are communicated by Dr. C. Green, to whom Dr. H. made known the remedy, and the former gentleman has tested the virtues of the remedy in head-affections, and regards it as a valuable therapeutic agent in these complaints. The dose may be increased to twenty-five or thirty drops.

IX.—*Chloroform in Surgical Operations*.—Professor P. F. Eve reports in the *Georgia Medical Journal*, the results of his experience of æsthetic agents in surgical operations. The report embraces 64 trials; 58 of these were with chloroform alone: death took place in but three instances—one on the fourth and one on the eleventh day after the operation.

The third survived until the sixth week after the operation. Many of the above operations were of a serious and painful character, yet no bad consequences could be traced to the effects of the æsthetic agents employed. The testimony of Professor Eve on this subject, is the more valuable, as his well known honesty and independence of character, must always command the respect and confidence of the profession.

X.—*Resignations and new Appointments—University of Louisville*.—Professor E. Bartlett, late of the Transylvania Medical School, Lexington, has been appointed Professor of the Theory and Practice of Medicine, in the Louisville Institute. Professor B. may be regarded as a valuable accession to any Faculty in the United States, and we opine it will be no easy matter to fill his place in the Transylvania School. "Professor Yandell has been transferred to the chair of the Institutes of Medicine, lately held by Dr. Caldwell, and is succeeded by Benjamin Silliman, Jr., Professor of Applied Chemistry in Yale College." Of Professor Yandell, the able editor of the Louisville Medical Journal, it is unnecessary to speak, as his reputation both as a writer and lecturer, is widely spread over the South and West. Professor Silliman is less known in the South West; but judging from his position and writings, we believe he will fill his chair with credit to the school.

THE MEDICAL AND SURGICAL JOURNAL.

VOL. VI.]

NEW ORLEANS, JULY 1, 1849.

[No. 1.

WITH this number we enter upon the *sixth* volume of the Journal, under more encouraging auspices than at any time since the work was projected. We have attempted, with the present number, to improve the mechanical part of the Journal. New type and a better quality of paper have been procured, and we shall continue, from time to time, to add such improvements to the work as our means shall justify. It is for the profession, at least those members of it who can and *will* write for the pages of the Journal, to decide as to the value of the matter that it shall contain. In order that the Journal may maintain, as heretofore, an independent position, we invite all who may have any valuable facts or observations to make public to send them to the editor, six weeks before the succeeding number is to appear.

By complying with this wish, we shall be the better able to collate and arrange the papers for the original department of the journal. We regret to see that some of our correspondents withhold their communications on account of their brevity, whilst others, seem anxious to extend theirs to a tedious length. To the former, we would say in all frankness, suppress no valuable fact or instructive case, because it cannot be elaborated into a monograph, or made to occupy one third of the journal; and to the latter, condense and compress as far as may be consistent with the nature of the subject and a clear exposition of the opinions and ideas of the writer. By this course, we shall be prepared to furnish a greater variety of readable matter to our subscribers, and at the same time, embody in the same space, the views, experience and observations of a greater number of physicians.

Observations on Cholera. By CHARLES DELERY, D. M. P., of New Orleans.

THE word *cholera* is a *greek* adjective, used substantively, the noun *nosos*, *disease*, being understood. The word *cholera* itself is derived from *chole*, *bile*. The physicians who first observed this distemper, gave it this name, because they conceived it to be a bilious affection. To name a disease from a symptom is to open the door to much confusion; for, as symptoms are subject to countless variations, owing to countless causes which cannot be appreciated, it happens that the same affection assumes contradictory names in different communities. Thus, among the Dutch, the cholera is called the *dysentery-vomit*, among the Russians, the *black disease*; it might also, be called, quite as correctly,

the *white disease*, in respect to the white stools which commonly accompany it. Many authors have given it the mongrel name of *cholera morbus*. The old historians of France called it by the quaint and expressive appellation of *troupe-garland, or stoop-gallant*.

This diversity of names for one disease is attended with much inconvenience, and not less inconvenient is the variety found in the nomenclature of its forms. Before we go any further, we feel it our duty to enter into a few explanations on this point.

The Graeco-Latin compound *cholera-morbus* is a generic term, embracing indiscriminately all species of cholera; literally interpreted, it signifies *cholera disease*.

The name of sporadic cholera (from the Greek *sporadicus, scattered*) is given to that cholera which does not assume the epidemic form, and which, as its name imports, preys upon a few individuals, scatteringly, under the influence of certain ascertainable causes.

On the other hand, the name of Asiatic Cholera is given to that pestilence, which has its birth in India, takes its course towards the west, overruns the earth and sweeps away its inhabitants, and then disappears, leaving us entirely in the dark, not less as to the cause of its going away, than as to the cause of its coming.

It also takes the name of *Eastern Cholera* on account of its birth-place, or of *travelling cholera* on account of its peculiarity of going from one country to another.

Lastly, it is designated by the appellation of *epidemic*, which term needs no definition.

Now again, special denominations have been assigned to certain forms of the disease. Thus, cholera not attended with stools is called *cholera sicca*; cholera resulting from excesses in eating or drinking is called *cholera crapulosa*, &c. There is no doubt that, with some attention to the matter and some taste for systematising, any man might easily swell this already too extended nomenclature.

Sporadic Cholera.—Before we speak of epidemic cholera, we deem it necessary to make a few remarks on sporadic cholera. There is such an analogy between these two affections that an account of the latter is a necessary introduction to a knowledge of the former. The *cholera-morbus* can be traced back to a very remote origin. Hippocrates has the following: "A person at Athens was taken with the cholera. He had vomitings and looseness of the bowels, attended with pains. Neither the vomiting nor the looseness could be stopped. The patient's eyes were hollow and dim. He had a hiccough, and cramps which originating in the bowels took hold of the stomach. The stools were more abundant than the vomit. The patient took some hellebore with some lentil broth; he then took another lentil pottage as much as he could eat, and at last, after one more vomit, the voidings upwards and downwards were stopped. He was, however, very cold. But he was bathed in very hot water from the groin downwards, so that the upper parts also gathered heat, and he recovered. The next day, he took some parched barley flour."

Let us remark by the way that the writings of the ancients contain no description of the epidemic cholera, whence we may conclude that this dreadful distemper was unknown to them.

Causes.—The causes of this disease are of two very different kinds; some of them act directly on the digestive organs, others, indirectly, through sympathy. Among the first, must be classed all substances which experience has shown to be indigestible, such as melons, cucumbers, and in general, all unripe fruits. The others act directly on the nervous system and sympathetically on the organs of digestion. To this second class of causes belong the depressing passions, such as fear, anger, violent grief, &c. Sydenham, who had observed a great number of cases of cholera-morbus, shows the disease to co-incide with the electrical state of the atmosphere, and maintains that it returns at the beginning of autumn especially, when storms of rain have suddenly lowered the temperature. It was at this season of the year, and under the influence of the atmospheric conditions pointed out by Sydenham that Dr. Ferrus observed numerous cases of cholera, in 1828, in the lunatic department of the Bicetre Hospital. Whatever may be the truth on this point, the state of the patient, when the disease has broken out, is as follows:

He experiences a feeling of heaviness in the epigastric region; his belly is blown out, and inflated with gases, that produce rumblings in the bowels, and which he cannot drive out. He soon feels cramps at the stomach; looseness and vomiting quickly ensue, either simultaneously or successively. The skin grows cool, and is covered with viscous sweat; the pulse grows faint, easier to be slackened and more frequent; the limbs, especially the lower ones, are seized with violent and painful spasms; the matter thrown up has an eruginous or leek-green color; the stools are white or colorless. The countenance undergoes a change; the eyes become hollow and dim; the mucous sides of the mouth become dry, and a burning thirst speedily ensues. If art does not come to the rescue, all these symptoms increase and death ensues. I was called two years ago, to attend a lady laboring under an attack of sporadic cholera. The symptoms and progress of the disease appeared to me to be identical with those of Asiatic Cholera. I hasten to add, and it is an important feature, that the disease was promptly overcome by appropriate treatment.

Prognostics.—The prognosis of sporadic cholera generally speaking, is not serious. It depends upon the patient's age, his strength and such previous affections as may complicate his state.

Prophylactics.—To avoid excesses of every kind, to observe a severe regimen, as soon as the slightest disorder is felt in the digestive organs.

Curatives.—If you deal with the disease at its inception, order an infusion of tea to help the digestion of the food lying on the stomach, or at any rate, to promote its ejection. Order embrocations of camphorated oil of camomile on the epigastric region. If the vomiting and stools have begun, seek to stop them with a laudanum potion, a sinapism at the pit of the stomach, and pieces of ice put into the patient's mouth. If the extremities are cold, warmth must be generated by means of bottles of hot water, or by dry frictions performed with flannel, and kept up a long time. When the cramps are violent, the patient is considerably relieved by having his limbs wrapped up in a compressive bandage. This plan was very successful in the case of the lady spoken of above. However, it is hardly possible to point out beforehand, all the measures

to be taken; the important point is to lay down the preliminary treatment to be followed till the physician can attend.

Although this affection is far from being as dangerous as the Asiatic Cholera, it should be well understood, for when neglected, it commonly is attended with fatal consequences. This notice appears the more necessary, because there is no science in which unprofessional persons are more at home than the medical science. This art is like the ocean; its immense depth gives a color of plausibility to the most extravagant opinions. As we have said before, Asiatic Cholera was unknown to the ancients. It was in the sixteenth century (1534) that it made its first appearance in France, where it raged with appalling malignity and received the expressive name of *trousse-garland*, or *stoop-gallant*. We give below a literal translation of the passage of Mezerai on this subject. "From the end of the year 1528, to the beginning of the year 1534, God was so angry against France, that there was a perpetual irregularity of the seasons, or to speak more correctly, the summer alone occupied the place of the three others. So much so, that during five years, there were not two consecutive days of frosty weather. By this unpleasant warmth nature was, as it were unnerved, and struck with barrenness. She brought nothing to maturity; the trees put forth blossoms and immediately afterwards fruits. The wheat did not multiply in the earth, and for lack of winter, so great a quantity of vermin preyed upon the germes, that the crops did not furnish seed for the ensuing year. This dearth caused a general and very fatal famine; afterwards, there came a disease called *Trousse-garland*, then a fierce plague, and these three scourges carried off more than a fourth of the population." Thus we see that it was after a frightful famine that the cholera broke out in France for the first time.

Would it be unreasonable to suppose that the cause which produced this irregularity of the seasons was the same that gave birth to the scourge? For it seems that all nature was a prey to a far spread cause of barrenness and destruction. At any rate, he who has closely observed this formidable disease, can easily conceive with what violence it raged on a population already exhausted by famine. In 1669 and 1675, the cholera broke out in London, and was attended with great mortality.

But these epidemics in point of intensity, fell far short of that which in 1833 overran the globe so speedily and carried off so many victims. All accounts and the whole sum of testimony agree on this point, that it broke out first in 1817, at Jessore, a city of Bengal, situated on the Delta of the Ganges at the distance of one hundred miles from Calcutta.

It took fifteen years to spread from East to West, ever preserving its primitive strength and nature. It is curious to trace its march in its wonderful peregrinations.

Starting from Jessore in 1817, it extends rapidly to Dacca, Dinapore and Calcutta. The next year, it reaches Madras and Bombay. In 1819, it invades the island of Ceylon, and afterwards the Mauritius and the Isle of Bourbon. In 1820 and 1821, it spreads through the Persian islands and all Armenia; in 1822, it ascends the banks of the Tigris and the Euphrates, and shows itself at Aleppo. At last, in 1823, it appears on the threshold of Russia, in the governments of New Georgia and

Caucasus; there it stops and halts several years. In 1829, it breaks out at Tiflis, and afterwards at Astrakan; hence it spreads and shows itself successively at Orenburg and at Moscow in 1830; at St. Petersburg in 1831, at Warsaw in March, at Dantzic in May, at Berlin, Nambourg and Sunderlang in October. Finally, in 1832, London and Paris feel its rage. In 1833, it quitted Europe, crossed the ocean and visited the New World.

It may be well to remark that the seourge, in its gigantic march, did not uniformly proceed from East to West. It has sometimes been seen to spread to all points at once, and simultaneously invade countries situated at the four cardinal points. It has been sometimes seen to deviate from its itinerary, turn backwards and prey on districts, which it appeared to have spared. Again, after having followed for some time one of the banks of a river, it has been known to quit it abruptly, and to carry desolation to the opposite bank. In Louisiana, as every body knows, the cholera breaks out on a plantation, dwells there a week or two, spares the contiguous plantation, and, leaping over the intermediate space, carries off one half or three fifths of the black population. Until the cause of this affection shall be known, it will be difficult, not to say impossible, to explain its capricious and erratic progress.

Description.—I have observed a great number of cholera patients since the breaking out of the epidemic, and, for my own part, I can say I have not met with a *single* case of *sweeping* cholera. Whenever I have been called to attend a serious case, I have always ascertained, by carefully questioning the patient, that the forerunners of cholera had shown themselves within the last eight, ten or twelve hours: in other patients only within several days past. If persons pay no attention to these warnings, it is that the apparent insignificance of the first symptoms and the nearly thorough absence of pain at the inception, lull them into a dangerous security. I remain thoroughly convinced that, during a cholera epidemic, two thirds less persons would die, if the disease were dealt with at its inception, so soon as its forerunners are noticed. I have often been consulted, the very day, nay the very hour of their feeling unwell, by persons having the self-same symptoms as those persons, who did not call me but in the last stage of the disease. I do not rest my assertion on a *single* fact; I could adduce five or six, and I do not doubt that many of my brethren have observed the same thing. How is it that so few medical men take the disease? Do they hold "a charmed life"? The reason is that they have studied it long beforehand, they have known its forerunners most accurately, they contend with them at the very outset, and observe more carefully the prescriptions of hygiene. That is an important point, and one that cannot be urged too frequently. Thus much being premised, I enter on the delineation of the symptoms. In the beginning, what the patient experiences is trifling. Sometimes, he can even hardly be brought to see the necessity of a severe regimen and medical treatment. He feels a slight puffing up of the abdomen, gases which distend the bowel but cause only a dull pain; at times, the rumblings subside, and begin again a few minutes after with fresh intensity; they are occasionally

heard at a distance. Add to this, a sensation not easily described, a sort of numbness of the bowels, which appear cold and unable to resist the gases which swell them out. At this stage, the patient's appetite fails, his sleep is disturbed, his pulse offers less resistance, and he already experiences a slight sinking of the frame.

These are the preludes of cholera; this state may last a longer or shorter time, according as means are used appropriate to these premonitory symptoms. Then it is that the smallest imprudence, the smallest quantity of food, which is in any degree indigestible may bring the distemper to a head, just as a close regimen, aided by a suitable course of medicine, may keep it off, I may say, always does keep it off. That is a point, which it is highly important to settle for treating this disease, which is so dreadful if allowed to gather strength, and I am truly anxious that those among my brethren, who share my decided opinion should give it the authority of their experience.

When hygienic and therapeutic means are lacking, the evil grows worse. Diarrhœa comes on; the cholic, which is trifling at the beginning, assumes a more alarming character. The stools become more frequent, and, as if every thing conspired against the patient, he fancies he has only the *influenza*, a false and dangerous distinction which breeds a fatal security, for, in fact, *influenza* is but the first step to cholera. If this formidable enemy, cholera, is to be overcome, it must be attacked in its embryo state, in the stage of *influenza*. This, in my opinion, is a truth above all doubt, a conviction founded on numerous observations made with the most scrupulous care. This point, which I have urged above, I insist on, because it is of vital importance. I have seen poor people who had called at the eleventh hour, and died without suspecting that it was cholera that killed them. There are, among the lower classes, persons who remain thorough strangers to the world they live in and to the events which interest them. Their minds, like the low huts they dwell in, only receive light, as it were, by stealth.

These symptoms are soon followed by others. The patient experiences cramps more or less violent, at the stomach, in the legs, in the fingers &c., sometimes, even the muscles of the face are convulsed. I have seen a person whose dorsal muscles were contracted with such violence, that his body was bent like a bow, as in tetanus. At the same time, the countenance changes and assumes the stamp of the disease. The eye, which is hollow and dim, stands far back in its orbit; the orbit is rimmed with deep blue. The lower part of the ocula conjunctiva shows an injection of the capillaries, which lasts even during convalescence. The tongue becomes cold, often the lips become blue; the skin grows cold, and is covered with a viscous sweat which sticks to one's fingers like glue; the body shrivels, and the skin long retains the marks of a pinch. The breathing is attended with sighs; the patient tosses about a great deal, and, though the surface of the body is icy cold, he complains of intolerable heat, and throws off violently the bed-clothes which are put upon him. I have seen a patient in this stage, who was suddenly afflicted with absolute deafness, for several minutes. Often, too, the sight is overclouded. Finally, the nose becomes peaked, the cheeks hollow, the radial pulse ceases to beat, and the patient dies.

However, I would have it understood that it would be no easy task to bring all the cases of cholera that occur in practice, within the above delineation. In a general description, it is not possible to embrace the infinite shades of a disease. To exhibit in one view the most striking phenomena and the symptoms, which appear in a nearly uniform manner is all that can be accomplished. I have had a patient who only experienced violent cramps, and was cured by means of dry frictions, and opium taken inwardly. I have also observed a case of cholera, which followed a gastritis and which was constantly accompanied, till the patient's death, with an obstinate costiveness. There were, also, in this case, frequent vomitings, a low pulse, and cold extremities. At other times, cramps are entirely wanting; it happens sometimes that the choleric coldness does not take place, and that a normal heat continues till the patient's death. Indeed, during the whole course of the epidemic, I have observed very strange phenomena in two or three persons. They experienced, without having tired themselves, an extraordinary prostration of strength; the temperature of the whole surface of the body, especially of the extremities, was perceptibly lowered; the pulse was faint, and offered but a small resistance; all appetite was gone; there was no vomiting, no diarrhœa, and the countenance, though slightly changed, bore the choleric character. One of them had an abundant perspiration on, which streamed from his body, and fell, like a shower, on the floor. I questioned him with the greatest care; I made the minutest inquiries, with a view to ascertain whether he had had, a day or two days before, a fit of fever, and I came to a negative conclusion. I ordered sugared wine to be taken in the course of the day, and all the symptoms gradually disappeared.

I must add that the stools and vomits appeared to me to present great varieties. Sometimes the vomits are bilious; at others, they consist of a colorless matter. As much may be said of the stools, which are sometimes white, sometimes colorless, and, occasionally, of a brick-red color. I have seen patients with colorless stools die off rapidly, whilst I have seen others with white, or brick-red stools, promptly restored to health.

Causes.—We must confess our ignorance; the cause of cholera eludes our grasp. As it always happens in dark questions, hypotheses are not wanting. I will briefly expose those which wear some show of reason; I will merely mention those which are baseless, just to give an idea of the vagaries in which men may indulge, when they are carried away by an extravagant and distempered imagination.

Some have fancied, by reason of the irregularity of the progress of this disease, that it is occasioned by insects that travel in the air. Thus wafted by columns of air, these insects whose existence has never been ascertained, travel, it is pretended, through the atmosphere, with all the irregularity of the winds, and carry in all quarters their baneful influence. Besides the fact that the existence of these microscopic animalcules has not been demonstrated, it is difficult to believe that, starting from Asia, they should with impunity brave the inclement skies of Russia, cross those icy regions, arrive safe and sound in Western Europe then cross the ocean and spread over the new world. On the other hand, the cholera being endemic in India, it is evident these animalcules must be permanent in that country.

Reflections on Cholera, with the Report of Cases of that Disease.

By D. M. PORTER, M. D., of New Orleans.

To the Editor of the New Orleans Medical and Surgical Journal:

DEAR SIR:—Much has been written, still more has been said, but little has thus far been done to enlighten the medical world, as to the true character of that most mysterious and lawless disease, which, for the want of a better name, we call “the cholera,” although it has engaged the attention of some of the wisest heads, which have adorned the galaxy of medical literature during the nineteenth century.

In proof of the truth of this proposition, it is only necessary to cast our eyes over the vast catalogue of therapeutic remedies that have been brought into requisition (differing so widely in their effects on the animal economy, in the treatment of this disease. And look for a moment, at the multifarious methods of treatment adopted by members of the profession equally entitled to respect and confidence, both as to their acquirements and skill. Let one hundred intelligent practitioners of medicine, residing at different points, and contending against this mysterious affection, report their methods of treatment, no two will be alike, and yet, what is as strange, and mysterious as the disease itself, they are all alike successful. Nor is there less disparity in the size of the doses of the remedies used, than there is in the remedies themselves. Whilst one would not hesitate to administer from 20 to 100 grs. dose of calomel, the maximum of another would be 1 to 1½ grs. whilst a third would give it in still smaller doses. Some advocate stimulants, and rely mainly upon their use, whilst others scrupulously avoid that class of remedies; some advise cold diluent drinks *ad libitum*, whilst others would only allow them in homœopathic doses. One class advocate bleeding; another would regard this measure as well calculated to hasten dissolution &c. Whence arises this great contrariety among us? What causes the wide difference in our views respecting the treatment of the cholera? Does it not arise from the different views we entertain of its true nature and pathology? This, to my mind, is the only satisfactory solution of these questions. “What is cholera?” says Dr. W. G. Maxwell, (Calcutta,) “is a question that has been asked a million times, and he might have added as often times unanswered; and now, that Dr. Maxwell has attempted to answer this interrogatory, I would still repeat the enquiry.

“What is cholera?” I do not expect, nor, have I the vanity to believe, that I shall be able to reflect any new light upon this most interesting, and at the same time, dreadful disease, with which perhaps the world was ever visited; I did not commence this paper with any intention of solving the above problem, nor writing a length essay upon the cholera. I design simply to state my confession of faith with regard to the pathology of cholera; with a recital of a few cases; with treatment based upon that view of its pathology. To my mind, at least, there seems to be a harmony existing between the views I have taken of the disease and the treatment adopted, and more reconcilable with existing phenomena, than obtains between the two in any other, with which it has been my fortune to meet. I define “the cholera” to be *Neuralgia of the nervous system of organic and animal life.* We have first, in the cerebral symptoms from the very commencement

of an attack of cholera in most cases, before any remedies have been administered, *excess in the senses*. Secondly; in the true spinal symptoms we have *tonic spasms*. Thirdly; in the ganglionic symptoms, we meet with, 1st, deficient *nutrition*, secondly, deficient *temperature* and thirdly, deficiency, perhaps, in most cases, a total suspension of the urinary and biliary secretions; with a perfect deluge of fluid from the bowels. The abdominal spasms witnessed in an attack of cholera, have their seat in the nerves of the semilunar ganglion, which are distributed along the whole course of the abdominal arteries, strictly ganglionic neuralgia, and hence the great fluxion and discharge from the bowels. The liver and kidney cannot fulfil their legitimate and respective offices for the want of due innervation; they are, if I may be allowed to use the term, paralysed. The two first cases here reported, being the severest that fell under my care, were in the humbler walks of life, where none but the physician knows the difficulties to contend against in the management of diseases generally, and the cholera especially.

Case 1st.—Mrs. C. (Irish)—aged 29 years; good constitution; no manifestation of any functional derangement previously, had slight diarrhoea in the morning of the 20th March, which was suffered to run on, increasing in violence up to 2 p. m. 21st—when I was called to see her. *Condition*; severe and tormenting spasms in both upper and lower extremities, with short intervals of intermission; vomiting and purging a fluid resembling chyle; known as “rice water;” rapidly increasing debility; abdominal cramps; sunken features; the whole surface bathed with a cold clammy fluid; pulse barely perceptible to the nicest touch; respiration oppressed and hurried; thirst intensely distressing; tongue moist, slightly coated; intellect perfectly clear, and remarkably active to every thing around her; no suffusion about the eyes; heart over the thoracic and abdominal regions preternaturally great. Not urinated since yesterday.

I had her feet placed in a saturated hot salt water bath, and kept there for three fourths of an hour, then wiped dry, well rubbed with dry mus-flour, with the following embrocation freely applied to the whole extent of the spine.

R. — Aqua ammon.	℥i.
Tinct. opii.	℥ij.
Tinct. orig.	℥i.
Tinct. canthar.	℥ss.

℞. Linament.

Mustard poultice to the epigastric region, placed on the back and ordered to observe that position; whilst in the bath prescribed *prec. carb. ferri* ℥i; *Comp. aromat. pulv. gr. v.* *Pulv. gum camphor. gr. 2.*

Effects.—She is now (3½ p. m.) warm, surface dry and pleasant; pulse distinct with some volumn; respiration nearly normal; neither discharge or spasm since she was placed in the bath; feels disposed to sleep, and expresses herself much better. Left her; three hours after I saw her again, and great was my surprise to find her profoundly collapsed? She died in half an hour. I was greatly perplexed to know what could have produced this sudden and unexpected change, for I had every reason to believe that reaction would be fully established, and that I

should find my patient much better. I learned that she had rested quietly, and slept for about half an hour after I left her; turned over suddenly in bed, and was seized with severe cramp or pain in the right side, as near as I could ascertain about the region of the right kidney. Supposing it to be a return of her former symptoms, her friends gave her a portion of some cholera nostrum, which the neighbours had brought in, and recommended as infalible, with a "stiff" drink of brandy toddy. She was overwhelmed by the draught no doubt, and sank under its stupefying influence.

Case 2.—Mrs. R., aet. 40. Plethoric, though rather delicate constitution, being the subject of frequent paroxysms of indigestion. The only material difference in the symptoms of this, and the first case, was in the absence of the cold exudation from the surface, in place of which the skin was as cold as marble, blue, and perfectly dry. She was attacked late in the evening of the 28th March; first, with an uneasy sensation about the stomach, followed in a few hours by spasm of the lower extremities, but as she had no diarrhœa until late in the night, she did not fully apprehend her true situation and danger, until her discharges became frequent and exhausting, accompanied with occasional vomiting; I saw her early on the morning 29th March.

Treatment.—Immersed in a hot salt water bath one hour; water kept near the same temperature; and this as high as could be borne; whilst in the bath, had one discharge from bowels, slight spasm at the expiration of the hour; complains of being faint; removed, and treated as in the first case; used the same linament, ordered dry heat to the extremities; prescribed—prec. carb. ferri \mathfrak{z} i. Comp. aromatic pulv. gr. v. Pulv. opii, gr. v, to be taken every three hours. 5 p. m. Taken three powders; comfortable and healthy perspiration, good pulse, no discharges, no return of spasms; some thirst; tongue slightly coated, but moist; no unpleasant symptom except a slight uneasiness in the head, has voided urine in small quantities twice; ordered some light nourishment, no medicine. 30th, p. m. Rested well over night, has had three evacuations from the bowels; consistent; very dark (probably from the iron) has urinated very copiously; wants to eat. In a few days she was well. May we not infer, that, but for the ignorance of her attendants, the first case might have terminated as favorably as the second?

Case 3rd.—Mr. D., aged about 30, a native of one of the eastern states; had diarrhœa slightly several days; previous to April 13th called to see him. 12 p. m. He is in the first stage, yet of a well marked case of Asiatic cholera. There is heat of surface; pulse very distinct; not much altered in frequency; discharge from the bowels about every half hour "rice water," proceeded by spasms in the lower extremities. Thirst very great; no vomiting now, but had been very distressing through the night, throwing up a dark green looking fluid; he is very restless; countenance anxious and distressed; has not urinated since early in the day. His tongue is coated with a long brown furr; there is tenderness on pressure over the region of the liver. I ascertained from his friends that he was a temperate man, but rarely ever in sound health. There is present manifestly great functional derangement. There was no possible chance to procure a bath in the case, (and this

is one curious difficulty in the way of its general use, it is difficult to procure it in some cases, in others wholly impossible.) I gave him tinct. lobelia as an emetic; after its operation, there was no further spasms. This struck me with some degree of force. Prescribed hydr. ferro. cyanurete de quinine. gr. x. Blue mass. gr. x. Pulv. opii. gr ii; allowed the use of ice water in small quantities through the night. 7 A. M., 14th, decidedly better; in his own language, "feels like a new man;" there is no alarming symptoms present; ordered spiced syrup of rheub.; in the course of the day, had two or three dark stools. 4 P. M., is convalescing. Being compelled to leave the city about this time, I did not return until the 14th May, when I learned that this man died of cholera in three days after I left. I left him, 4 P. M. on Saturday, doing well, and with prudence must have recovered. He was taken worse on Monday, and died on Tuesday.

May 29th.—Called to see Mrs. R., Irish, a full liver in every sense of the word; had diarrhœa; day before some twelve evacuations, character not noticed; some four or five this morning resembling, "rice water;" ineffectual efforts to vomit; cramps in legs; had taken brandy and pepper; learned she had taken a plate of pickles for her breakfast. Gave her salt water and mustard emetic, which, contrary to my expectations, failed to produce emesis; gave tinct. lobelia, which soon brought away a quantity of pickle, and other indigestible matter. After the operation of the emetic, there was no more cramp or spasm. (I will here remark, once for all, that I have used the lobelia emetic repeatedly in cholera, and I have never known a recurrence of spasms after its operation.) I regarded this case, as still in the diarrhœal stage; she was a remarkably healthy woman. She has not urinated to-day, 10 A. M.

R.—Tinct. capsicum et myrrh, (No. 6.)	℥i.
Aqu. menth pip.	℥ss.
Syrup. zingiberis,	℥iss.
Spts. camphor,	℥ij.
Tinct. opii,	gutt. 60
Tinct. catechu,	gutt. xx. M.

One fourth of this mixture to be taken every hour, in addition to the prec. carb. ferri powders, directed in the second case, every three hours.

30th, 8 A. M.—Dressed and sitting at the breakfast table; had taken all the mixture and two powders; diarrhœa arrested after the 2d dose. Prescribed comp. syrup of rheubarb to open the bowels; she soon recovered.

I will here remark, that where I have met a case early in the diarrhœal stage—where there is no manifest functional disturbance existing in the system from the beginning—one half of the above mixture given at once, the other half in a half hour, hour, or two hours, according to the emergency of the case, will rarely fail to arrest the diarrhœa. When there is vomiting, nothing will answer the purpose better to unload the stomach, and prepare it for the reception of this mixture, and other remedies if deemed necessary, than the tinct. of lobelia. It is prompt in its action, leaves no prostration behind it, and appears to exert a specific influence on the nervous system of organic and animal life. Where there is manifest functional disturbance at the onset of an attack, and there is reason to believe that such has existed for some

time previously, I have a predilection for blue mass. hyd. ferro cyanurete de quinine and opii. My usual prescription is: R.—Blue mass grs. x to xv.; hyd. ferro. cyanurete de quinine grs. x. Pulv. opii, gr. iii. This I give at one dose or, in four, five or six, according to the nature of the case. As a laxative I prefer the spiced syrup of rhubarb, which answers admirably well to keep the bowels soluble after the diarrhœa has been arrested. A case fell under my charge about the 1st of April, which presents some points of interest, and goes to show, (so far as one case would prove any thing,) the efficacy of the per sus-quintrate of iron, in certain cases of cholera. As my notes of this case are short, I will extract them.

Mrs. P., very delicate lady, frail constitution, has suffered from repeated attacks of "bowel complaints," as they are called; has had diarrhœa for two days; discharges differing so materially from any thing she had experienced in any previous attack she became alarmed. After my arrival I saw one stool; I regarded it as decidedly characteristic of the cholera. She had great aversion to opium in any form, owing to some peculiarity of constitution. She had been taking chalk mixture before I saw her, which had restrained the diarrhœa, but it was still troublesome; she had to abandon the mixture owing to the distressing effects it produced upon the head, from the laudanum it contained. She had taken enemata containing laudanum frequently in her life, always producing the same effect upon the head. I ordered her 15 drops per sus-quintrate of iron in a little rice water three times a day, and to observe perfect quietude in the horizontal position. She recovered without any other medicine.

1st January, 1849.

HEALTH OF THE CITY.

We are compelled to refer again, under this head, to the progress of cholera in our city. Since the middle of December last, it has dwelt among, and dealt unkindly with, us. Neither the course nor force of the winds, the rise and fall of the thermometer, and barometer—nor deluging rains or cloudless skies, nor any or all the vicissitudes for which our climate is remarkable, have had much effect in modifying either the symptoms, or checking the progress of the direful scourge. In 1832, the cholera, after raging in this place for five or six weeks, disappeared in 24 hours, after a heavy gale from the north. Not so, however, in 1848–9. For nearly seven months, it has been carrying on the work of death, and during all this period, about one half of the deaths which have taken place in this city, from *actual* disease, have been produced by this epidemic. This fact is at once startling, and well calculated to lead us to investigate the cause of its protracted stay in our city. Is it about to take up its permanent abode among us, and become a co-worker of death with yellow fever? Heaven forbid! *Time*, however, will decide this question; at present we have neither the wish nor

ability to engage in the investigation of a subject fraught with such melancholy reflections. We subjoin below a weekly statement of deaths, since our last issue; this will speak for itself.

					<i>Cholera.</i>	<i>Total.</i>
Deaths for the week ending	April 28,	1849.	-	-	60	177
"	"	" May 5,	"	-	114	225
"	"	" May 12,	"	-	127	235
"	"	" May 19,	"	-	113	202
"	"	" May 26,	"	-	95	193
"	"	" June 2,	"	-	69	120
"	"	" June 9,	"	-	82	182
"	"	" June 16,	"	-	66	153
Total,					726	1487

The total of deaths from the 28th of April, as shown above, to the 16th of June, about two months, reaches *fourteen hundred and eighty seven*, of which *seven hundred and twenty six*, nearly one half, died of cholera—so marked in the returns made by the sextons to the Board of Health. From the above, it will be observed that cholera has declined slowly in our city, during the period included in the foregoing statement. If present appearances can enable us to judge of the future, we venture the opinion that cholera will linger among us throughout the summer and fall, although it may steadily and gradually decline.

It remains to be seen what effect the inundation of a large portion of the city, may have upon the progress and symptoms of this disease. About the first of May, 1849, the levee, about nine miles above the city, yielding to the pressure of the waters, gave way, and through this *crevasse*, a large volume of water, from the swollen current of the Mississippi was forced into the swamps and low lands in the rear of the 1st and 2d Municipalities, and also a part of Lafayette, located above New Orleans. This immense body of water, unchecked, soon began to encroach upon the inhabited parts of the city, bordering the swamp lands and lying between the city proper and the lake. In about one month from the formation of the crevasse, that is to say, about the first of June, the water reached its highest mark, and since that time it has daily declined, and at this hour, (June 18th, 1849,) a portion of the inundated district has been relieved of the stagnant water. Nearly one third of the 1st and 2d Municipalities were under the flood, at the highest water mark. Of course much suffering and damage to property were experienced in this part of the city.

Since the flood began to retire, a deposit of alluvion, containing a large per cent. of vegetable and animal matter, has been precipitated in our streets and gutters; all this, if left exposed to the action of a June and July sun, may become the active agent of disease—the *materies morborum*.

It is but just to state, that the authorities of the city, with our patriotic Mayor as leader, are making extraordinary efforts to rid us of this deposit, as the water recedes.

The month of June is usually more oppressive than any other of the twelve months. Since the first of this month up to the 20th, 1849, the

thermometer has rarely fallen below 90, in the shade; occasionally it has reached above that figure at meridian. The question is asked from every quarter, what influence will this overflow exert upon the health of this city? In 1816, when the inundation was almost equal to the present, the health of New Orleans, according to the testimony of the oldest inhabitants, was remarkably good, being but few cases of serious sickness, and not a trace of yellow fever. Although the limits of the town were much more contracted then than now, yet but little was done to guard against, or counteract the effects of the inundation. This fact, although highly encouraging, should not lead the "*authorities*" to relax their efforts in cleansing this great Augean stable, so long the receptacle of fætid deposits, of both putrifying animal and vegetable matter. As we have no great faith in the so-called influence of malaria, (the result of about ten years' observation in this city) upon human health, we are inclined to believe that the health of the city will not be seriously endangered by the overflow. If *chloride of lime*, or some other powerful disinfectant, or absorbent, be freely used in the district overflowed, we shall enjoy, *perhaps*, more than our usual exemption from sickness, notwithstanding the predictions to the contrary of alarmist and miasmatisers. But it is idle to speculate on a subject, about which so great a diversity of opinion has been expressed; time will solve the problem, and let us not therefore anticipate the ills and misfortunes of life, but await, with calm resignation (doing in the interval every thing in our power to avert disease,) until the moment arrives when we shall be called on to act our part.

The general health of this place is quite good, and but for a few *sporadic* cases of cholera, New Orleans would compare favorably, if it did not surpass any city in the country for health. The intense heat for the last fifteen days, has necessarily produced some sudden deaths, especially in persons exposed to the direct rays of the sun. For an abstract of the thermometrical state of the season, since our preceding publication, we refer to Mr. Lillie's table at the close of this number.

Delegates to the American Medical Association.

We omitted to state, in our preceding number, that the *Physico-Medical Society* of New Orleans had elected at one of its sittings, Prof. Jas. B. Jones, and Dr. J. C. Simonds, as Delegates to the American Medical Association, which convened in Boston, May 1st, 1849. Both are gentlemen of talents and were well and wisely chosen to represent the profession of New Orleans. We see from the reports of the proceedings of the Association, that both these gentlemen were in attendance, and Prof. Jas. B. Jones of the Medical Depart. of the University of La., was nominated one of a Committee on *Practical Medicine*, and Dr. J. C. Simonds, on *Hygiene*.

The Association transacted a large amount of business, and adjourned with the best feelings, to meet next year in Cincinnati.

We refer the reader to an abstract of the proceedings of the Association, in another part of the Journal, copied from our estimable contemporary, the Philadelphia Medical Examiner.

CHARITY HOSPITAL.

This great thermometer of the health of New Orleans, still continues to receive the afflicted poor within its walls, from whatever quarter they may come. Important additions have been recently made to this institution; a new wing has just been completed, in the rear of the main buildings, of the same size, and fronting the wing formerly occupied by the Insane. This department is designed to accommodate the Sisters of Charity, the stewards, and it also serves as a refectory for the officers and other inmates of the institution. The building formerly occupied by the insane, now receives the *female* patients admitted in the hospital. By this arrangement, the *female* will be separated from the *male* patients; an arrangement always desirable in a large establishment of this kind.

By the recent additions to the hospital and other changes in its internal arrangements, still greater accommodations will be extended to the sick.

The buildings can now receive and comfortably entertain *one thousand* patients—the largest charitable institution perhaps in the world, in proportion to the *permanent* population of the city in which it is located. About the middle of June, over 800 patients were quartered in this hospital, all entertained at the expense of the State. “But charity vaunteth not.”

The average number of patients annually admitted into this institution is between *eleven* and *thirteen thousand*, all of whom are *gratuitously* attended by the physicians of New Orleans. The profession in this city, deserves great credit for its disinterested devotion to the cause of charity and the suffering poor.

Mortality of New Orleans for 1848.—Error corrected.

In our statistical account of the deaths in New Orleans for 1848, contained in the May number of the Journal, 1849, (page 797,) we committed an error, which we hasten to place to the credit of our city. The deaths for the months of *June, July* and a part of *August*, were twice copied in that statement, thus swelling the total of deaths, for the year 1848, to 9,352, instead of 7,407—the actual mortality for the entire year.

Of the 7,407 deaths,

Died of Cholera,	-	-	-	-	-	924
“ Yellow Fever,	-	-	-	-	-	759
“ Still born,	-	-	-	-	-	145
“ Ship Fever,	-	-	-	-	-	170
“ Accidents,	-	-	-	-	-	227

Total,	-	-	-	-	-	2,225
--------	---	---	---	---	---	-------

Thus reducing the actual number of deaths in the city of New Orleans, exclusive of the above 2,225, to 5,182; certainly a very small mortality for a city containing 150,000 inhabitants.

State of Louisiana—Department of the East—Members of the Medical Jury.

Dr. J. Labatut, Pres't;	Dr. C. Turpin,	M. Canon, Drug,
" H. Lewis,	" C. Delery,	P. A. Bertrand, Secre-
" A. Hester,	" W. Stone,	tary, Drug.

List of Doctors, Druggists, Midwives and Dentists Licensed from December 20th, 1847, to May 25th, 1849:

DOCTORS.

Adler, E. J.	Franklin, John	Mos de la Rosa, J. M.
Andrews, J. L.	Grant, R.	Moss, B. H.
Allenne, J. S. B. Jr.	Galvan, J.	McCracken, —
Archer, I. G.	Gaillard, S. S.	Moll, Martinus
Barker, R. D.	Gibbs, R. T.	MacDaniel, H. R.
Blamonte, J. S.	Greig, Alex.	Mitner, A. W.
Brickell, D. W.	Hogg, Th.	Mather, F. W.
Booth, H. G.	Hubbard, J. M.	McMillan, Rob.
Boulin, D. F.	Head, W. N.	Pettigrew, —
Blache, Louis	Harper, W. W.	Pinkard, B. T.
Bernard, Ph. L.	Heroson, D. C.	Porter, D. M.
Browning, G. T.	Hart, Frederick W.	Pelan, Hugh
Coffield, H. C.	Hensley, A. C.	Roaldes, Abel
Carter, John	Joung, Th. H.	Reese, G. W. S.
Cross, G. W.	Kovaleski, K.	Simonds, I. C.
Caudon, C. A.	Logie, W.	Smith, P.
Cochrane, J. H.	Lowe, J. T.	Stull, G. T.
Canton, F.	Lafage, C. J. B.	Tucker, P. W.
Drouhin, C. L. A.	Laureal, David de	Tierry, Ant.
Dydynski, L.	Lapeyre, J. M.	Vanderlinden, P.
Deneufbourg, L. T.	Langenbecker, A. F. C.	Warfield, G. W.
Ford, D. S.	McLeod, A. M.	Welman, H. W.

DRUGGISTS.

Beach, E. D.	Jarvis, Nathan	Llado, —
Booth, I.	Kennedy, Hugh	Olivelia, —
Cony, F. M.	Kalteyer, F.	Wilder, W.
Gandolph, G.		

MIDWIVES.

Begez, M. C.	Jeunger, A. M.	Monnie, Jeanne S.
Flahs, C.	Kolbe, F.	Vivez, Perrier nee.

DENTIST.

Smith, G. W.

P. A. BERTRAND, *Secretary.*

DEPARTMENT OF THE WEST—MEMBERS OF THE MEDICAL JURY.

R. H. Sibley, M. D.	Josiah Hale, M. D.	J. Weed, M. D.
Leven, Luckett, M. D.	J. W. Simon, M. D.	John A. Taylor, M. D.

List of Doctors and Druggists, Licensed to the date of the 21st May, 1849 :

DOCTORS.

Bush, Eli	Gazo, J. B. C.	Millard, E. W.
Briggs, E. L.	Heixon, L.	Milligan, R.
Bun, Platt	Hawkins, J.	McLeroy, J.
Brady, Philip	Hapson, S. B.	Norris, R. H.
Butler, S.	Hale, J.	Nestor, A. S.
Belden, S. G.	Harris, J. P.	Peebles, R.
Cannon, W. P.	Hall, W. W.	Peek, C.
Cannon, J.	Hendry, A. R.	Powdell, S.
Cark, E. B.	Hyde, C.	Rose, A.
Cuney, R. R.	Hannah, W. H.	Rippey, J.
Conner, —	Hundon, E.	Russell, H. J.
Cruikshank, R.	Heard, —	Rose, W. R.
Casson, J.	Heard, E. J.	Ragland, J. A.
Claybrook, W. E.	Handy, W. T.	Sibley, John
Connell, W. O.	Johnson, W. J.	Slæcum, Charles
Day, E. L.	Irvine, J. D.	Sibley, R. H.
Davis, R.	Kellogg, G.	Stewart, W. W.
Dabbs, C. H.	Laysard, Valentine	Shepherd, R. J.
Dudley, J. W.	Levis, W.	Smith, S. A.
Duggins, F. P.	Leonard, E. A.	Skillman, E. J.
Ellmore, —	Lockett, L.	Shields, B.
Ely, E. W.	Lawrence, R. S.	Vail, Jea.
Eddy, C. C.	Laningham, W. P. P.	Wright, J. D.
Fredelesy, U. M.	Maddox, J. H.	Williams, P. S.
Finley, Ulm	Mott, T. G.	Wise, J. S.
Gardiner, T. F.	Mayo, P. R. P.	West, B. B.
Gauzon, C.	Morrison, W.	Williams, —
Garrett, J. S.	Machen, H.	Wasson, W.
Gans, D. S.	Millard, H. J.	Zane, Nathan

DRUGGISTS.

Nester, A. S.	Hyde, E.	Johnson, J. H.
Morison, G. W.		

☞ Persons practicing in the Department in the West, whose names are omitted in the above list, will apply to Secretary of the Medical Jury, at Alexandria, so as to have them included in the next publication.

J. HALE, *Secretary.*

LAWS RELATIVE TO THE MEDICAL BOARD OF LOUISIANA.

Sec 5.—*Be it further enacted, etc.,* That every person who shall practice in the State of Louisiana the profession of a physician, an Apothecary, or that of Midwifery, without a special license granted by the Medical Board, shall be liable to a fine that shall not exceed the sum of one hundred dollars for the first offence, and the second offence such person shall be fined a sum that shall not be less than two hundred and not more than five hundred dollars, recoverable by said Medical Board before any court of competent jurisdiction in this State, and said fines shall be paid over to the Treasurer of the Charity Hospital.—*Extract from Act of March 27, 1840.*

Deaths from Cholera in New Orleans.

Since the 13th of December, 1848, up to the 16th June, 1849, the total number of deaths from cholera in this city, numbers *three thousand five hundred and forty-three*, exclusive of a small number interred in the Lafayette cemeteries, and not therefore reported to the Board of Health. As several of the New Orleans cemeteries are inundated, the dead, from this city are occasionally transferred to Lafayette for interment.

ABSTRACT OF A METEOROLOGICAL JOURNAL FOR 1849.

BY D. T. LILLIE, AT THE CITY OF NEW ORLEANS.

Latitude, 29 deg. 57 min; Longitude, 90 deg. 07 min. west of Greenwich.

WEEKLY.		THERMOMETER.			BAROMETER.			COURSE OF WIND.	FORCE OF WIND.	Rainy Days	Quantity of Rain. — Inches.
		Max.	Min.	Range.	Max.	Min.	Range.		R to 10		
1849											
April	- 28	82 0	66 9	15 1	30 21	30 27	0 06	S W	2½	1	2 920
May	- 5	87 1	71 8	15 3	30 19	30 12	0 07	S E	2½	3	7 055
"	- 12	82 0	70 4	11 6	30 19	30 10	0 07	S	3½	3	4 100
"	- 19	86 1	71 3	14 8	29 82	29 51	0 31	S	1¾	3	1 555
"	- 26	91 0	76 4	14 6	30 02	29 58	0 04	N	2	3	0 200
June	- 2	88 6	76 3	12 3	30 07	30 07	0 00	S	2	1	1 620
"	- 9	90 1	79 6	10 5	30 03	29 99	0 04	S E	2½	4	0 630

REMARKS.—The Thermometer used for these observations is not attached to the Barometer, but is a self-registering one, and is placed in a fair exposure. Regular hours of observation, 8 A. M., 2 P. M. and 8 P. M.

The Barometer is located at an elevation of 19 feet above the level of the ocean, and is suspended clear of the wall of the building.

The Rain Gauge is graduated to the thousandth part of an inch, and the receiver is elevated 40 feet from the ground.

Monthly Reports of Charity Hospital—April, 1849.

Admissions, Males,	-	-	-	-	-	-	-	708
" Females,	-	-	-	-	-	-	-	301—1107
Discharges, Males,	-	-	-	-	-	-	-	476
" Females,	-	-	-	-	-	-	-	200— 676
Deaths, Males,	-	-	-	-	-	-	-	177
" Females,	-	-	-	-	-	-	-	32— 209

MAY, 1849.

Admissions, Males,	-	-	-	-	-	-	-	901
" Females,	-	-	-	-	-	-	-	333—1234
Discharges, Males,	-	-	-	-	-	-	-	716
" Females,	-	-	-	-	-	-	-	268— 984
Deaths, Males,	-	-	-	-	-	-	-	240
" Females,	-	-	-	-	-	-	-	28— 268

Total number remaining on the 1st of May, - - 837
 " " " " 1st of June, - - 800

THE
NEW ORLEANS
MEDICAL AND SURGICAL
JOURNAL,
DEVOTED TO MEDICINE
AND THE
COLLATERAL SCIENCES.

EDITED BY
A. HESTER, M. D.

SEPTEMBER, 1849.

"Summum bonum medicinæ, Sanitas."—GALEN.

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.....
1849.



LIST OF PAYMENTS

MADE TO THE NEW ORLEANS MEDICAL JOURNAL SINCE THE
PUBLICATION OF LAST NUMBER, TO DATE.

Barnes, Francis, to July, 1850,	\$5	Jaskeu, J. A., to Jan., 1849,	5
Brooks, S. M., " 1849,	10	Keller, M., to March, 1849,	5
Benton, R. A., to Jan'y, 1850,	5	Logan, S. W., to July, 1850,	5
Bybee, — to July, 1848,	5	Liddon, Benj. F., " " 3	75
Barnett, W. D., " 1849,	10	Leake, W. S., " 1849,	10
Cackon, W. A., " 1843,	10	Moore, Bond, " "	5
Chester, Chas., to Jan'y, 1850,	5	Manson, O. F., " "	5
Coxe & Co., Ed. J., July, 1850,	10	Mears, A. H., to January, 1850,	5
Comer, M. S. " "	10	Millard, E. M., to July, 1850,	5
Dungan, J. B., " "	5	McKee, W. H. " "	10
Dockery, H., " 1849,	5	McKee, W., " 1848,	15
Day, Rich'd H., to Jan'y, 1850,	5	Meeks, John, to May, 1850,	10
Estell, Willis, " "	10	Moore, Thos. E., July, 1850,	5
Edmonston, —, to July, 1850,	5	Moore, R. D., " 1849,	5
Frost, H. R., " "	10	McGehee, J. G., " "	10
Frierson, M. B., " 1849,	5	Middleton, H. C., to Jan., 1848,	5
Fugate, H. V., to Sept., 1849,	15	Mayfield & Morton, July, 1850,	5
Giddings, E., to July, 1849,	15	Page, F. B., to January, 1849,	5
Grand, Le, to January, 1849,	10	Phila. Med. College, July, 1848,	10
Hill, G. W., to July, 1849,	5	Perrin, G. J., " 1850,	5
Holliday, D. C., " 1850,	5	Pucker, W. G., " "	5
Hall, J. R., " "	5	Rhodes, J., " "	6
Hyde, —, " "	5	Rather, D., " "	5
Hire, —, " "	5	Sandige, J. S., " "	5
Holland, J. T., " "	5	Sutton, David, " 1849,	5
Herring, B. N., " "	5	Tuck, J. W., " 1847,	5
Hedrick, W. C., " "	5	Wilson, A. L., " 1849,	5
Hensley, A. C., " "	5	Webb, —, " 1850,	5
Henderson, — " 1849,	5	Willard, E. X., " 1849,	5
Harris, D. N., " "	15	Young, John, " 1850,	5

TO READERS AND CORRESPONDENTS.

Our correspondents will please send in their communications for the *Novem.* *ber* number of the Journal. We again request them to condense as much as possible. Short and practical papers are preferable to communications extended to a tedious length. Our aim is to be brief and to the point; and to this end we solicit the aid and co-operation of our friends.

We have received, since our last publication, communications from the following sources, viz: Dr. W. P. Reese, of Alabama; Dr. W. B. Johnson, of Ala., Drs. Ames and Boling, of Montgomery, Alabama; Dr. A. Lopez, of Mobile; and Dr. C. E. Lavender, of Selma, Ala. All the above papers, except that from Dr. Reese, were read before the *Alabama Medical Association*, and kindly transmitted to us through its secretary, Dr. Sims, for publication. Some valuable reports from this *Association* will be found in this number of the Journal; the above shall appear in our next.

Our usual list of *exchanges* has come to hand; also the subjoined list of books, pamphlets, &c., for review.

I.—Tenth Annual Announcement of the Baltimore College of Dental Surgery, Baltimore, 1849.

II.—An essay on Intestinal Auscultation. By Charles Hooker, M. D., Professor of Anatomy and Physiology in Yale College. (From the Author.)

III.—Human Anatomy. By Jones Quain, M. D. Edited by Richard Quain, F. R. S., Professors of Anatomy and Physiology in University College in London. Edited by Joseph Leidy, M. D. *In two volumes*, with over 500 illustrations. Philadelphia, Lea and Blanchard, 1849. (From Publishers.)

IV.—Chemical Analysis, Qualitative and Quantitative. By Henry M. Noad, Lecturer on Chemistry at St. George's Hoepital, &c., with numerous additions. By Campbell Morfit, practical and analytical chemist, author of Chemical and Pharmaceutical Manipulations and co-editor of the encyclopædia of Chemistry, Philadelphia, Lindsay and Blakiston, 1849. (From Publishers.)

V.—Proceedings of the State Medical Convention held in Raleigh, April, 1849, and Constitution and Medical Ethics of the Medical Society of the State of North Carolina, then adopted. (From the Society.)

VI.—Cholera: its causes, symptoms and treatment, considered and explained. By J. P. Batchelder, M. D., of New York City, 1849. (From Author.)

VII.—A manual of Auscultation and Percussion. By M. Barth, agrégé to the Faculty of Medicine in Paris and M. Henry Roger, Physician to the Bureau Central of the Parisian Hospitals, &c. Translated by F. G. Smith, M. D., Lecturer, &c., and one of the editors of Medical Examiner, Philadelphia. (Second Edition.) Philadelphia, Lindsay and Blakiston, 1849.

VIII.—A Treatise on Epidemic Cholera; being lectures delivered under authority of the Faculty of Medicine of Paris. By Ambroise Tardieu, M. D., Adjunct professor of the Faculty of Medicine; physician of the Central Bureau

of the hospitals of Paris. Translated from French by Samuel Lee Bigelow, M. D., with an appendix by a fellow of the Massachusetts Medical Society. Boston, Ticknor, Reed and Fields, 1849. (From Publishers.)

IX.—Lecture on Epidemic Cholera, delivered in the hall of the Philadelphia College of Medicine, May 1849. By Thomas D. Mitchell, M. D., Professor of Practice of Medicine in the Philadelphia College of Medicine. Philadelphia, 1849. (From Author.)

X.—American Journal of Insanity, Utica, New York, July, 1849.

XI.—Proceedings of the State Medical Convention held in Macon, Ga., March, 1849, and constitution of the Medical Society of Georgia. (From Society.)

XII.—The pathology and treatment of Cholera, with an appendix, containing his latest instructions to Planters and heads of families, (remote from medical advice) in regard to its prevention and cure. By Saml. A. Cartwright, M. D. New Orleans, 1849. (From Author.)

XIII.—Professor C. A. Lee's valedictory address to the Class of Geneva Medical College, Geneva, New York, 1849.

XIV.—Annual announcement of the Medical Department of Pennsylvania College—session, 1849—50.

XV.—Constitution and By-Laws of the Medico-Chirurgical College of Philadelphia. Adopted February, 1849, together with a list of the officers and members. (From the College.)

XVI.—Annual Announcement of the Medical Department of the St. Louis University. September, 1849—50.

XVII.—Catalogue of the officers and students in the Western Reserve College, 1848—9. Hudson, Ohio.

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THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

SEPTEMBER, 1849.

Part First.

ORIGINAL COMMUNICATIONS.

I. — TWO CASES of *immobility of the jaw, successfully treated by S.C. Farrar, M. D., of Jackson, Mississippi.* With a note by J. S. COPES, M. D., of N. Orleans.

CASE 1st. In November 1846, I operated on Miss Sarah Berry, aided by J. Boteler, M. D., and C. S Knapp, Surgeon Dentist.

This young lady had been salivated seven years previously ; portions of the maxillary bones had exfoliated ; her mouth was distorted ; her countenance disfigured, and the jaws were so firmly locked, that I had much difficulty in insinuating between the teeth, a common case-knife. On the left side of the mouth, strong adhesions had formed. Her food was introduced through a small space given by the loss of one or two teeth. The patient was seated in a chair, with her face fronting a window. The letheon having been administered by Mr. Knapp, and her head being firmly supported by Dr. Boteler, I proceeded to operate according

to the mode lately proposed by that accomplished young surgeon, Dr. M. Sims, of Montgomery Alabama.*

The adhesions were divided by a narrow tenotome, and simultaneously the strong flat blade of the case knife was used as a lever to force the teeth asunder. Very little space, however, was gained by this means. The knife, therefore, was immediately exchanged for the deal wedge which was used with all the power it could exert, for several minutes before the jaw relaxed. At length, however, it was successful, and I obtained an opening of about half an inch between the two rows of teeth in front.

The mouth was then cleansed; bits of sponge introduced between the jaw and cheek, and a wooden wedge directed to be worn (except at meal times) between the teeth, for three or four weeks. The power of opening the jaws to the extent of three-fourths of an inch was thus obtained.

Miss Berry is now (Apl. 1849) enjoying good health and all the advantages consequent upon the success of the operation.

Case 2d. Robert Laird, resident and farmer of Rankin county, Mississippi. This patient is a man of large size, great vigor of constitution, and immense strength and tonicity of muscular fibre. His powers of endurance under exposure or suffering, and his resistance of the influences of narcotic and anæsthetic agents, as well as the *tout ensemble* of his physical development, mark him as the man of iron frame and nerve.

In November, 1847, I visited him in company with my partner, J. S. Copes, M. D., now of New Orleans, with the view to an operation for the release of his lower jaw, long and firmly locked by bands formed in the process of cicatrization. Five years previously, Mr. Laird had been salivated, and thereby had lost a large portion of the superior maxillary bone, several of his teeth, and a part of the tongue. Three of the remaining teeth were removed by Dr. Copes, in the course of the operation, on account of their very loose condition, the obstacles they interposed to the use of instruments, and the impossibility of restoring them to such positions as would render them useful. These were molars, and the extrication of them through the still closed jaws, from the inside of the mouth, was attended with difficulty. Fortunately, an aperture, from exfoliation, afforded the means for doing it. The under jaw projected considerably beyond the upper, and the space between the teeth would barely admit a wedge shaved down to a very thin edge. Two firm bands, one on each side, bound the jaws together. They extended from the second bicuspid teeth to the angles of the jaw.

Seating the patient in a chair, with his face exposed to a strong light, and having his head firmly supported by my friend Dr. Copes, I proceeded with a narrow tenotome knife, two inches long, to separate the adhesions. The knife was passed flatwise between the cheek and the adhesions of each side; the edge was then turned inward and the bands

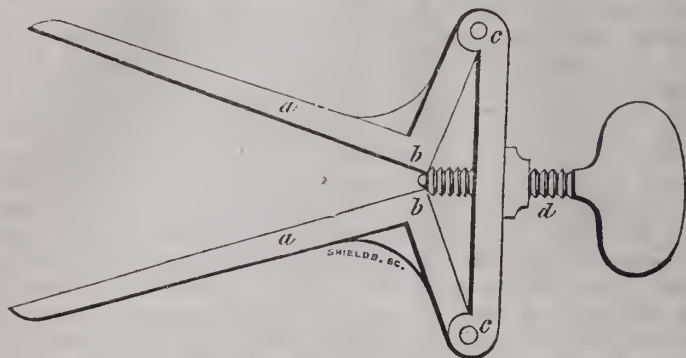
* See N. O. Med. et Surg. Journal, for January, 1847.

carefully divided. For a time the bleeding was profuse, but this was not tedious, or attended with any ill consequences. I then endeavored to depress the lower jaw by means of the wedge, but with all the force I could exert, accomplished very little in this way. It is due, however, to a proper understanding of this case, to state, that the condition of the whole of this patient's teeth was such, as to preclude the use of the wedge or lever power operating upon them, to that extent which is in almost all these cases necessary to the sundering of their morbid attachments. Only one of the incisors of the lower jaw could bear any pressure at all, and that comparatively little; the molars, destroyed or greatly diseased, both with caries and inflammation of the periostium of the fangs, were no better, leaving us the cuspidati as almost the only bases for any distending force within the mouth. A very strong strip of cloth was then folded longitudinally and stitched at the edges, making it thus doubled, about half an inch wide. This was inserted between the teeth, sufficiently far back to cover the cuspidati and bicuspidi of the lower jaw, and the loose ends united strongly so as to form a loop. By means of this loop, Dr. C. applied all the force he was master of, to separate the jaws, but with limited success. The state of the teeth above alluded to made this, as well as the wedge and lever, a painful force, and although the patient exhibited the most exemplary fortitude, it could not be endured but for a moment at a time. We now became convinced that we could accomplish but little without the instrument used by Dr. Mott. We therefore cleansed the mouth, and for the time left our patient, with proper directions as to the use of sponges and the wedge, and an assurance, that as soon as possible we would return with an instrument, which, in all probability, would afford the desired relief. We accordingly exhibited a model of Mott's instrument to an ingenious gun-smith of Jackson, by whom a very creditable instrument was at once made. Two days after the operation, I visited Mr. L., introduced the blades of the instrument, and explained to him the principles of its action. He gradually turned the screw, until he procured an opening half an inch in width,—enough for all useful purposes. He could have procured a larger space, but the pressure of the instrument, for the reasons before mentioned, gave great pain, and he was compelled to discontinue the use of it, or at least to apply it at long intervals, and with moderate force. Up to this time, (20th April, 1849,) there has been no contraction of the muscles restricting the action of the jaw. Mr. L. enjoys good health, and is highly gratified with the success of the operation.

With Prof. Mott, I think there is no case of immobility of the jaw, except where anchylosis has existed for a length of time, that this instrument will not overcome. Dr. Mott has operated in numerous cases, and always with success, save in one instance.

To Dr. Sims, great credit is due for his original, simple, and efficient mode of operating, which in young subjects will, no doubt, very generally succeed. But in adults, whose disease has been of long standing, and in persons of athletic frames, and great strength, and contractility of muscle, Dr. Mott's instrument holds out the greatest prospect of success.

Below is a drawing of Dr. Mott's Lever and Screw Instrument, taken from the Third Vol. of Velpeau's Operative Surgery, by Mott, Ed. 1847, with the explanatory note, vide pp. 1142, 1143.



“Explanation of the Figure: a a the two levers bent at right angles, and united to the fulcra, c c by a joint; d the screw passing through the centre of the bar, and acting upon the angles b b, which are notched to receive its point.”

[NOTE. The wood-cut above is introduced for the benefit of those members of the profession who, from any cause, may not yet be in possession of the great work on Surgery, by Velpeau and Mott. It is doubtless both simple and efficacious; so much so, that almost any adult patient of sound mind may, under the direction of his surgical adviser, continue its use advantageously, for some time after the performance of the operation above described. In the case of Mr. Laird, and all others of similar organization and lesions, it may readily be inferred, that the masseter and temporalis muscles have from long disuse, become rigidly—almost irremediably contracted. This we know is not ordinarily overcome at once in such subjects, however great the force employed. In fact, the rule here, as we often find it in luxations and fractures, is, “the greater the force the greater the resistance,” even to the rending asunder the aggregation of fibres of which the muscle is composed. Consequently, if, by the persevering application of a gently graduated, but at the same time, efficient agency, such as exists in this instrument, we can, by persuasion or stealth, (to use a favorite expression of the late distinguished surgeon, Geo. McClellan,) overcome this obstinate resistance—our purpose is most happily achieved.

Often, too, as in the case of Laird, we find the *teeth* so much diseased by the same cause, which generally produces the still graver injury, that it is extremely difficult and painful to use the necessary force at once, for freeing the confined jaw. For a long time after he had obtained the degree of relief mentioned in the above narrative, he continued to carry his instrument with him, occasionally applying, and continuously deriving benefit from it.

It is not stated by Dr. Farrar, in the above notes, that prior to the commencement of the operation, chloroform was administered to the latter patient, to as great an extent as was deemed prudent, but with no perceptible effect. He did not need it, as the event proved, nor did he appear to be a subject of its influence.

Dr. Farrar's notes of these cases have been for some time in my possession, but until very recently it has been out of my power to have the cut prepared, which both he and I desired should accompany them; otherwise, they should

have been offered in time for the May number of the Journal. The whole subject is a practical one, as every practitioner knows who has been called to the exercise of his profession in the alluvial districts of the south-west.

Mercury is still freely given, in thousands of instances improperly, and by unprofessional hands, without knowledge and without concern as to its occasionally injurious consequences, and the results are seen in a host of such cases as those related by Dr. Mott, nearly all of which, as well as these, were produced by salivation.

For all these abuses, the medical profession is, by quacks and even by well-meaning tho' ignorant persons, too often held responsible. We know it is not our fault; nevertheless, as it is an existing evil, let us strive to remedy it so far as it is remediable.

New Orleans, June 7th, 1849.



II. --- *On Simple and Anomalous Convulsions*. By E. MONTGOMERY, M. D., St. Louis, Mo.

By simple and anomalous convulsions, I mean those morbid phenomena, which cannot be referred to Hysteria, Chorea, Epilepsy, or any of the convulsive affections which have received generic names. The silence of the profession, and the paucity of medical periodical literature on these particular affections, together with their alarming aspect and frequent occurrence in practice, must be my apology for soliciting a space in your columns, for the few brief and practical observations which I am about to make. The true nature and exciting causes of many of the *genera* included in the CLASS *neuroses* and ORDER *spasmi* of Dr. Cullen, are, as yet, very obscure. In the following remarks, I shall treat of those clonic convulsions which occur during, or subsequent to, other diseases; as intermittent, remittent, typhus and eruptive fevers; pneumonia, whooping cough, inflammation, congestion, or irritation of the brain and spinal marrow, irritation of the stomach, bowels, bladder, &c., &c.

Secondly.—I shall speak of those tremors, jerkings, and twitchings of the muscles of the eyelids, face, neck and head, which exhibit the rapid winking, the tremor of the integuments and muscles of the face and temples, the quick jerkings of the neck and bobbing of the head, and of the convulsive and rapid involuntary movements of the diaphragm, which produces that very annoying affection, called *Singultus* or *Hiccough*.

Thirdly.—I shall advert to those *Tonic Convulsions* which occur in particular muscles, or in particular organs, often causing a permanent contraction or contortion of the parts, as is frequently seen in spasmodic contraction of the muscles of the fingers, toes, and neck; the *recti* and

oblique muscles of the eye, &c.; partial paralysis, or continued deformity of the parts are often the consequences of these tonic contractions. The causes, nature and treatment of those convulsions which supervene during the progress, or subsequent to, other diseases, would seem to be sufficiently plain and evident; in such instances the causes are mobility and irritability of the nervous system, irregular determinations of the blood, or functional and structural derangement of important internal organs; these various functional or organic lesions being induced by the deteriorating and prostrating influence of the disease. If convulsions occur late in the course of any acute disease, they are ominous of a fatal issue; and *in all cases* where the patient is unconscious, delirious or comatose during the paroxysm, the prognosis is unfavourable: but in many cases, convulsions appear during acute diseases as manifestations of the efforts of nature to overcome the disease, or as the consequents of a depraved nervous energy; and in such cases, they are not to be considered as portending evil. In remittent and continued fevers, their appearance in the way last described is frequently followed by a copious and healthy perspiration, and complete intermission or permanent cessation of the fever; but where the fever has been of a grave form, and the convulsions occur at an advanced period of the malady, and the patient insensible and unconscious during the fit, there is reason to fear congestion, effusion, or structural lesion of important vital organs, as the lungs, brain, medulla, or ganglionic system. During eruptive fevers, convulsions generally appear during the period of the breaking out of the efflorescence or eruption, or when there is sudden retrocession of the irritation from the skin to the internal organs; here the prognosis is not necessarily unfavorable, for the *vis medicatrix naturæ* in both cases is laboring to "throw out" the disease; and the judicious physician by aiding her with suitable means, will soon find a fortunate result to ensue. In inflammation of the nervous centres or their membranes, convulsions are symptoms of dire import, for they evidence a great amount of inflammatory action, or effusion, or softening and structural lesion. Convulsions occurring in pneumonia are generally harbingers of evil; they depend here on morbid changes in the blood whereby the brain is deprived of its proper stimulus and nourishment, at least this is the general cause of their appearance; but in some cases of pneumoria, they are excited by the inflammatory excitation of the disease, abnormal engorgements of the blood, &c. In croup and whooping cough, the impeded respiration, impaired arterialization and circulation of the blood, excite and sustain the convulsive actions, so often witnessed in these diseases. The convulsions brought about by irritation of the stomach, intestines, bladder, &c., are explicable on the theory of the reflex principle, so fully elucidated and experimented upon, by M. Hall; J. Reid, Muller, Carpenter, &c. The irritating influence of acrid and crude matters in the stomach, of worms in the intestines, or of *calculi* in the bladder, is conveyed to the ganglionic nervous centres by the *afferent*, from whence it is reflected to the muscles, by the *efferent* fibres, thus causing the slight or violent convulsive movements of those muscles, in proportion to the impressibility of the subject, and the graveness of the irritant. And I would here remark, that the exciting causes here alluded

to sometimes give rise to convulsions of an alarming character, the paroxysm holding the patient such a length of time as to bring on coma, stupor, delirium; and it is important that these cases should not be judged of, as if depending on effusion or organic disease of the nervous ganglia. Their true nature can be determined by studiously reviewing the previous history of the case; the period and progress of the disease; the symptoms and constitution of the patient, &c.

The *second* kind of convulsions which I am now about to describe are of very frequent occurrence; indeed, in a populous city, such cases may be seen every day. When the clonic convulsion or tremor affects the muscles of the eyelid, (the orbicularis, levator palpebræ, and part of the occipito frontalis,) that rapid and grotesque movement of the eyelid, constituting spasmodic winking, is produced. Sometimes, both the superior eyelids are affected, but generally only one; the eye, in such cases, seems small and "watery," and the sight is considerably impeded; often the sudden movements of the integuments and muscles are so rapid, as to cause a perfect tremor of the parts, proving a great annoyance to the patient, and giving him a very ludicrous appearance. Sometimes, the muscles of the mouth and cheek are affected with convulsive movements, often drawing the former to one side, or producing what is termed, the *Risus Sardonius*. The quick jerkings of the muscles of the neck produce that peculiar bobbing of the head, called "head palsy;" the *subsultus tendinum* of the muscles of the extremities, which gives such a shaking or trembling motion to them, is known by the name of "shaking palsy;" these two last mentioned affections are generally seen in people of advanced life, and, of course, in them is irremediable; but in persons of more tender years, where the tremors have been excited by dissipation, or by mental or bodily distress or fatigue, absence of the predisposing and exciting causes, with a persevering use of the nervine tonics, hereafter to be recommended, will generally effect a cure. The true physiology of these convulsive movements is still rather obscure; the *portio dura* of the seventh pair of nerves is the one, the functional derangement or abnormal influence of which produces the starting tremor or contraction of the facial muscles; and it must be remembered, that this nerve, having a distinct cerebral and spinal portion, is capable of reflex action, so that its unnatural action on the muscles may be excited by either centric or excentric morbid causes or influences. The superior branches of the third pair of nerves are probably connected with the *portio dura*, in exciting the convulsive movements of the muscles surrounding the eyes, whilst the third, fourth, and sixth pair are the nerves, whose perverted and too powerful stimulus occasions the temporary or permanent *strabismus*, or twisted and crooked appearance of the eyeballs, so often observed as the consequence of convulsions. It is most likely, that "head palsy" depends on morbid influence conveyed to the muscles by the spinal accessory nerve, and its direct communication and close conjunction with the pneumogastric would seem to explain the true *rationale* of this affection being generally seen in persons of intemperate habits, and whose digestive system must consequently be much impaired. The spasmodic action of the diaphragm and respiratory muscles is exci-

ted principally by means of the *par vagum* and *phrnic* nerves. Altogether, the genera of convulsive affections just alluded to are very interesting, in a pathological and physiological point of view.

The *third* kind of convulsive phenomena to which I would advert, is the *Tonic Convulsion*. By this kind, I mean a contraction, spasm, or convulsion of a permanent character, and which frequently runs into partial paralysis. This variety mostly attacks the extremities; we frequently see a person with one or both thumbs spasmodically drawn across the palm of his hand, and if the patient is started, or disturbed in any manner, convulsive movements of a most painful character are excited in the affected thumb; the fingers, toes, legs, and arms are often disordered in this manner. Sometimes, the hand and arm is convulsed, the hand generally flexed forward on the wrist, and the forearm slightly inclined on the arm, both wrist and elbow joints being immovable by the volition of the patient, although frequently extended, flexed, pronated, and supinated by convulsions, or involuntary movements. Tonic convulsions, like the others enumerated, generally affect the voluntary muscles; they frequently depend on a diseased or unnatural condition of the *Medulla Oblongata* and *Spinalis*, such as effusion, softening, pressure from a tumor or specula of bone, &c., irritation of the membranes of the brain and spine, and, indeed, irritation, congestion, and inflammation of any of the serous and fibrous membranes will produce convulsions, from the fact, that the nervous fibrils are very freely ramified over those tissues, making them very sentient to all morbid impressions, which impressions are conveyed to the spine by the *afferent*, and from thence reflected by the *efferent* fibres to their respective muscles. From the experiments of Vallentin, M. Hall, J. Reid, Bell, Allison, and others, it would appear, that these permanent contractions and semi-paralytic convulsions, for the most part, if not entirely, depend on a diseased or unnatural condition of the spinal cord, and according to the extent of injury there, will depend the gravity or slightness of the disease. It will be seen, that I have touched very lightly upon the physiology of the nervous system, as I wish to be very brief, and to dwell more on what is most practically important in these cases, to wit: their remedial management. The symptoms or diagnostic phenomena of convulsions are so well known, and of such common occurrence, that I will not enumerate them.

The *Treatment* of those cases which occur during the progress of other diseases, is generally plainly indicated by the symptoms and true nature of the acute disease; thus, if convulsions occur in the early stages of pneumonia, the exciting cause may be looked for in a loaded state of the pulmonic vessels, inflammation or erethism of the membrane of the trachea, bronchea, and air-cells; and to relieve these unnatural conditions, general or topical bleeding, antimonials, mercurials, and diuretics, will be the means best adopted. If convulsions appear towards the termination of pneumonia, the cause is deterioration of the blood, whereby the *Sensorium Commune* is deprived of proper stimulus and nutrition, and, sometimes, engorgement or passive congestion. In these circumstances, there is little hope of accomplishing much by any

course of treatment. Sinapisms to the epigastrium, spine and extremities, blisters to the *nucha*, and the use of the following internal medicaments, promise the best chance for a favorable issue.

R — Hydrarg. Subchlorid. grs. xxv.
 Pulv. Digitalis, grs. v.
 Antimonii Sulph. Rub. ʒss. M. et divid.

in chart. No. v. One of which is to be given every 5 or 6 hours.

The powders should be given freely or sparingly, according to the urgency of the case; and besides them, the following mixture should be used *pro re nata*.

R — Aqua Camphoræ, ʒxxv.
 Acid Nitric, fʒij.
 Tinct. Valerianæ, ʒss. M.

A tablespoonful every hour until an amelioration of symptoms.

In convulsions occurring in the advanced stages of continued fevers, the same treatment as the foregoing, should be pursued: in the early stages, topical bleeding with leeches to the temples, or scarified cups to the nape of the neck and mastoid regions, should be applied. When they appear about the period of the efflorescence, or coming out, or retrocession of the eruptions in eruptive fevers, the skin should be sponged with mustard, or weak pepper tea, and one of the following mixtures given; if there is much debility, the first — if otherwise, the second prescription will be suitable.

R — Aqua Ammoniac Acetatis, ʒxx.
 Tinct. Rhei. Comp., ʒi.
 — Colchici Antum. ʒv. M.

A tablespoonful every hour or two until relieved.

VEL,

R — Antimonii et Potassæ Tart. grs. viii.
 Aqua Camphoræ, ʒxvi.
 Tinct. Digitalis, ʒi. M.

A tablespoonful every hour or two; continued *pro re nata*.

Such complications in intermittent or remittent fevers, generally depend on functional derangement, or loss of integrity of the nervous system; this condition, which is induced by the debilitating and deteriorating effects of the fever, creates a mobility in the patient, by which the voluntary and involuntary muscles, are made to manifest the abnormal and diseased actions — as convulsions, palpitation, laborious breathing, &c; in these cases, a mild and digestible diet, regular habits, mental composure, and a course of vegito-mineral tonics and alteratives, will suffice. A severe convulsive movement of the chin, towards the shoulder, is frequently observed during the course, or after an attack of intermittent fever. By using the following remedies, I have never failed to remove these convulsions of the muscles of the neck, (principally the sterno-cleido-mastoid.)

R — Hydrarg. Chlorid. Mit., ʒss.
 Antimonii Sulphuret. Rub. ʒij,
 Ext. Hyosciami Nig. ʒi. M. et divid. in

pill, No. xxv.

Two or three of the pills every second day, until the convulsions

cease — giving a teaspoonful or two of the following solution every two hours, in the absence of fever.

℞ — Quininæ Sulphatis,	
Ferri. Sulphatis,	aa 3i.
Aqua Font.	℥viii.
Acid Sulph. Dilut.	f3ij. M.

In those cases, where convulsions appear as the consequence of inflammation, congestion, irritation, effusion, or softening of the nervous centres — the treatment will be more complicated and difficult. If we have reason to suspect the existence of inflammation or sanguineous congestion of the brain, spinal marrow, or their membranes, free bleeding with scarified cups to the nucha, temples, or spine, according to the seat of the exciting cause, should be promptly had recourse to — and if the patient is plethoric, venesection should also be employed. The head should be kept cool, shaved, and counter-irritation with tartar emetic ointment, applied to the scalp, using the following prescription until the disease is subdued, or slight ptyalism produced.

℞ — Mass. Pill. Hydrargyri,	3ss.
Aloe Socotorin,	grs. xvi.
Antim. et Potass. Tart.	grs. iij. M. et divid.

in pill, No. xii.

Two pills every four or five hours. If there is effusion or softening, blisters or counter-irritation with *Ungt. Iodid. Potass. et Iodin*, should be had recourse to, giving the following internal remedy until amelioration of symptoms:

℞ — Hydrargyri Protoiodid.	grs. xx.
Pulv. Scillæ et Jalapæ,	aa 3ss.
Pulv. Digitalis Purpurea,	grs. x. M. ℥. mass.

in pill, No. xx, dividenda.

One pill, two or three times daily.

Convulsions arising from irritation of the bladder, stomach, or bowels, is often to be combatted by appropriate treatment for the removal of these exciting causes, which treatment will be sufficiently evident to the observing physician, to be adapted by him to each particular case. I would remark here, that in persons who have suffered from convulsions, no matter from what cause, the paroxysms are very apt to recur occasionally, even after the *fons et origo* of the convulsions, have been effectually removed: the reason of this is, that the habit has been formed, and the nervous system has become irritable and very susceptible of the morbid impressions. In cases then where the paroxysms continue after we believe the exciting cause has been removed, we should administer permanent tonics, as the preparations of iron, valerian, ammoniated sulphate of copper, oxide of zinc, subnitrate of bismuth, &c. Before adopting any particular plan of treatment for convulsions, we should first endeavor to find out the original source, and sustaining cause of the malady, whether from inflammation or mere nervous irritation; whether from sanguineous engorgement or serous effusion; whether in the course of the nerves or their centres, whether in nervous

tissue or in the membrane of some remote organ, as the stomach, intestines, bladder, lungs, &c. The kind of convulsions first adverted to, arising, during or subsequent to other diseases, generally afford plain indications as to their true nature and cause; but those convulsions, which do not seem to be connected with any particular disease, but appearing in persons of otherwise good health — their cause and essence is not so palpable. In treating of the second kind of convulsions, *viz.*: those tremors, startings, jerkings, and sudden contractions of particular muscles, they will be generally found to occur in persons of a weak habit of body, or of a nervous temperament. Cases of paralysis, agitans, head palsy, and singultus, are probably exceptions, but the two former occur in persons of advanced life, and consequently, much the same course of treatment should be pursued toward them, as toward those of a feeble constitution, or a nervous temperament. In these peculiar convulsive jerkings of the muscles, it will be well *in all cases*, to apply an anodyne and stimulating liniment to the surface of the affected region, the volatile liniment with *tinct. opii et tinct. camphoræ*, will be an excellent application; and if there is the least numbness or semi-paralysis of the part, it may be made more stimulating by the addition of spt. terebenth. vel tinct. capsici. These external applications will much tend to remove the *causas morbi*, if it is in the course of the nerve, or in the affected muscle, and it will also assist very much, in restoring the natural nervous action. In many of these cases, the persevering use of the following remedies have been followed by the very best effects.

R. — Mass. Pill. Ferri. Carb. Vallet. ʒiij.
Moschi, ʒi. G. Galbani, ʒii. M.

Make into pills of five grains each, one or two of which, should be taken three times every day.

VEL

R. — Quinin. Sulph.
Ferri. Sulph. aa ʒi.
Pulv. Valerian. Ang. ʒiij. M.

Make into pills with mucilage and syrup of rhubarb, one, three or four times a day.

The *syrup iodid. ferri*, with *tinct. valerianæ anglicæ*, the *infus. cinchon. acid*, with tr. cort. aurant., the sol. potass. arsen., &c., are all very efficient remedies in these cases; and it is well to change the prescription frequently, and insist on the continued use of some of the remedies for a considerable length of time. Besides those enumerated, the following may be tried, compounded and combined according to the particular indications of each case: the ammoniated sulphate of copper, ammoniated nitrate of silver, ferrocyanuret of quinine, subnitrate of bismuth, oxide of zinc, prussian blue, muriated tincture, and solution of sesquinitrate of iron, &c., &c.

In singultus or hiccup, if the subject is plethoric, venesection should be performed; and in almost all cases, scarified cups over the epigas-

trium, will be serviceable; having employed general or topical bleeding, or both, the following treatment will generally remove the disease.

R̄—Infus. Valerianæ, ℥xx.
 Ammon. Sesquicarb. ʒi.
 Tinct. Digitalis, ʒiij. M.

A tablespoonful every two hours until relieved, then every five hours.

VEL,

R̄—Fol. Hyosciami et Fol. Digitalis, aa ʒiij.
 Aqua Bullient. Oiiij. Coque.
 et adde Antimonii Tartarizat, gr. xii.
 Tinct. Opii et Tinct. Camph. aa ʒv. M.

A tablespoonful or two every two hours.

The valerian and ammonia, to be employed when the patient is weak and irritable; and the other, when there is a tendency to plethora. Besides the above, the bowels should be regulated, and healthy digestion promoted, by an occasional use of the following pills.

R̄—Mass. Pill. Hydrargyri, ʒi.
 Bismuth Subnitratis, ʒiiss.
 Ext. Colocynth. Comp.
 — Hyosciami Nig. aa ʒij. M.

Make into pills of five grains each, three or four of which should be taken for a dose.

If the case is obstinate, a blister to the epigastrium, and counter-irritation by means of tartar emetic ointment, along the spine, will be very essential. The above formula for pills, is particularly adapted to cases of head palsy, or paralysis agitans, occurring in persons of intemperate habits. Of course, the mode of life, diet, and exercise, should be judiciously regulated. The general muscular jerkings and *subsultus tendinum*, observed in the advanced stages of continued fevers, can always be much relieved, if not entirely removed, by the following prescription.

R̄—Aqua Ammoniacæ Acetatis,
 Aqua Camphoræ, aa ʒvi.
 Æther. Chloric, ʒi. M.

A tablespoonful in linseed tea every two hours, until amelioration of symptoms.

I would here remark, that I am opposed as a general rule, to the administration of opium or its preparations, in such cases, but where there is great mental and bodily disturbance, wakefulness, &c., a little morphia may be advantageously added to the above mixture.

In the tonic convulsions, or permanent contractions of particular parts or muscles, we should be studiously attentive in our endeavors to find out the moving cause of the malady; the spinal column should be carefully examined, and particular inquiries made to the patient, whether he had received any fall, blow, or any other local injury, whether there is any pain, dullness, giddiness or heaviness in the head; whether any disagreeable symptom or feeling in the region of the heart, stomach, or bowels, and whether there is dyspepsia, dyspnoea, palpitation of the

heart, or any fullness or throbbing experienced in any particular region. If we can find out any lesion by these investigations, we should endeavor to remedy it by proper means, as the application of scarified or dry cups, blisters, issues, setons, counter-irritating ointments of tartarised antimony, iodine, veratria, croton oil, &c., in structural lesion, and by proper medicaments and a just system of hygiene for the functional and visceral diseases. In some cases of these tonic convulsions, the cause of the disease is pressure on the brain, medulla oblongata or spinalis, by a tumor or depressed portion of bone; in such cases, of course little can be done towards a radical cure, but much good may be accomplished, by avoidance of all excitement, mental or corporal, mild diet, frequent application of leeches to the diseased region, and the use of such medicines as calm and control the circulation, soothe the system, and counteract inflammatory action. In cases arising from sanguineous redundancy, or increased vascular action in the nervous centres or their membranes—bleeding, local or general, should be resorted to, and the *ungt. antim. tart.* applied over the diseased region. Besides these external means, the following medicines should be administered :

℞ — Hydrarg. Chlorid. Mit. ʒss.
 Pulv. Scillæ Mar. ℥i.
 — Digitalis, grs. xii.
 — Glycyrr. grs. xv,

Mucilaginis, q. s. ut fiat mass in pill, No. xv. divid. M.

Two pills every night and morning until slightly ptyalised.

℞ — Antimonii et Potass. Tart. grs. xii.
 Aqua Camphoræ, ʒxviiij.
 Vin. Colchici Aut. ʒiij. M.

A tablespoonful four times every day until an amelioration of symptoms.

These prescriptions, or some modification of them will prove the best internal treatment for tonic convulsions in all subjects, that are not very weak, whether the exciting cause be inflammation, compression, from sanguineous engorgement or effusion of serum or pus; from depression of bone or tumour; in rigid contractions where the patient is otherwise healthy, and where we cannot discover any thing by which we can judge of the source and support of the disease. I have lately had a patient with tonic convulsions in the left arm and hand, who has always enjoyed excellent health; has no tender spot or unpleasant symptom, or feeling about him, but the affected arm; he said he knew of no cause to which he could attribute the disease: has never had a "spell of sickness" in his life, does not remember ever having fell, or getting a blow or injury of any kind. He is a stout muscular man, about 28 years of age, and a farmer. (What was most curious in his case was the fact, that he was not of a nervous temperament, had no disagreeable symptom any where but in the arm and hand, and yet by approaching him suddenly, or asking him questions, the muscular contractions would take place so powerfully that his hand and arm would seem deformed and cause him great pain.) The thumb and three first fingers were partially flexed, as also his forearm, all the time, but during the convulsive par-

oxysms, these parts were contracted and bent in a more powerful degree. In this case, the treatment pursued was venesection, scarified cups to the nucha and between the shoulders; the internal use of the remedies last described; bathing the hand and arm in a hot watery solution of opium; keeping the arm and hand constantly enveloped in a poultice made of this infusion of opium and bread crumb, and a mild unstimulating regimen. He soon got entirely well, and if no untoward accident or imprudence befalls him, I think he will continue so. I would here wish to urge the importance of using medication to the surface of the diseased parts by way of liniments, lotions, ointments, &c. In cases like that just described, where the muscular contractions are very sensitive and painful, I think the opiate infusion the best application, and if the case should prove very obstinate, I would scarify the skin before making the application. Where the tonic contractions are associated with a semi paralysis or loss of proper feeling in the cuticle, an anodyne and stimulating liniment, such as that recommended in clonic convulsions, will be more servicable. In such cases, I have also seen good effects, resulting from the application of an ointment, composed of half a drachm of extract of belladonna to an ounce of simple cerate. The *ungt. veratriæ* is also a good application in these cases. Although tonic convulsions and contractions of particular parts generally appear in persons otherwise strong and apparently healthy, yet we occasionally see them in subjects of a week and debilitated habit of body; when this is the case, we should apply the more strength, giving medicaments as valerian, ammonia, combinations of quinine and iron, Fowler's solution, &c. The application of the liniments to the spine and affected parts, with the daily use of the flesh brush, nutritious but unirritating diet, exercise in the open air, regulating the bowels by mild purgatives, as an occasional eight grains dose of blue mass, followed by calcined magnesia and syrup of rhubarb. Let it be ever remembered that in the remedial management of all convulsive diseases, there are two very opposite conditions of the system which favor their development, and encourage their continuance when once produced: these obnoxious conditions are anemia and plethora; and a very prevalent error consists in encouraging the former and *not* subduing the latter state of the system. When convulsions depend on vascular or inflammatory action, this should be promptly and effectually subdued *in limine*; but great care and circumspection is required so that depleting and exhausting remedies are not carried too far, or prolonged to a dangerous extent. On the other hand, when the disease originates *from*, or is kept up *by*, a mobility and weakness of the system, tonics and restoratives should be perseveringly and judiciously employed. In this latter condition, I have often seen the disease prolonged, and the patient exhausted by bleeding, purgatives, and a false system of hygiene, because, forsooth the patient had palpitation, vertigo, tenderness of the spine, frequent arterial throbbings, &c. When in fact all these symptoms depended on erethism and mobility, an exactly opposite state of the system from that, for which the depleting treatment was applicable. It is particularly important in managing these affections that whilst we avoid the Scylla, we must beware of running foul of the Charybdis. If there is inflammatory

action, it should be subdued by bleeding and antiphlogistics, if constipation, dyspepsia, worms or other irritants in the alimentary canal, alteratives and efficient purgatives should be employed, but as soon as the desired effect is produced, the remedies should be discontinued or only employed when really required; indeed it most frequently happens that immediately after the use of depletives, purgatives and antiphlogistics, we must have recourse to tonics and restoratives. Again when the *fons et origo* of the malady, are effusion, softening, or compression of the nervous centres, neither an energetic course of depletives and antiphlogistics, nor the administration of tonics and stimulants will be admissible; but counter irritants both local and constitutional, and a well directed system of hygiene, will be the principle means to be depended on. Of the effects of mental conditions as hope and fear; of the influence of electricity and galvanism, and of simple and medicated baths as remedial agents in convulsive diseases, I have not deemed it necessary to treat. It is stated that a change of condition from penury to competence, and from grief and anxiety to gladness and contentment, has often dispelled these affections from the sufferer; and we read of Boerhaave's having driven off convulsions by ordering his assistants, in the hearing of the patients, to bring hot irons and brand the first person attacked! This was certainly heroic treatment, and withal ingenious, and there is no doubt but something on the same principle would be followed by good results in some cases. Of electricity and galvanism, I would say that I never have observed any beneficial effects from them in these affections, and I feel very confident that in many instances, their employment would be followed by evil consequences. In cases, where there is no effusion, compression or structural lesion, the daily use of the water or shower bath will often do much good. In short, these adjuncts to medical treatment, so far as they are within our control, should not be overlooked in the remedial management of any disease. And the capable and conscientious physician will not strive to cure his patient, as the mechanic would mend a piece of broken machinery, but as a moral intellectual and physical being. Remedies must be applied to the mind as well as to the body, the imagination must be administered to, air change of scene and well directed exercise; proper food, and regular, and strictly temperate habits are each and all as essentially necessary as any article in the *materia medica*. Whilst it may be truly said of the physician, '*Felix qui potuit verum cognoscere causas*' it is of still greater importance, that he should be PRACTICAL, judicious and discriminating in his selection and employment of remedies, acute of observation; having a head well stored with useful wisdom, and a heart overflowing with charity and philanthropy.

Saint Louis, Mo. 26th May, 1849.

III.—ON THE *Diseases of Cahawba and its vicinity.* A report read before the Alabama State Medical Association, at its sitting in Wetumpka, on the 7th and 8th March, 1849. By J. A. ENGLISH, M. D., of Cahawba.

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CAHAWBA is situated immediately on the west bank of the Alabama river, in about lat. 32° 20' north, and long. 87° 30' west; about 150 miles above Mobile, and at the junction of the Cahawba and Alabama rivers. The soil upon which the town is located, is of a clayey nature, alumina preponderating largely in its composition. In the language of the farmer, it is of a thirsty character, in other words, it requires a great deal of rain to sustain vegetation during the summer months. The ground will become parched and dusty in three days after a shower. The plain upon which the town stands, is scarcely above high water mark, the greater portion having been occasionally inundated by the freshets in the Alabama river. About a mile and a half west of the town, we strike the first range of hills — these hills gradually approach the river in a southerly direction, until about 7 miles below, where they form high and precipitous banks; about five miles north-west, we strike the prairie region of country, which extends westwards, (interrupted with occasional strips of sandy soil,) to a great distance. The town is supplied with water principally from wells; water of a good quality, being obtained at from 24 to 30 feet. The water is slightly impregnated with lime. The land in the immediate vicinity of the town, is low and flat, and was, until 1840, interspersed with numerous small shallow ponds; these have been thoroughly drained, and now hold water but a few hours after the heaviest rains. It has become a subject of remark by the citizens of the place, that since that time, the town has become much more healthy — particularly as regards endemic fevers. In truth, in the last 4 or 5 years, the former dreaded scourge, bilious remitting fever, has almost disappeared, and the few cases that we do have, are of a mild type. But a disease, although more slow and insidious in its approach, yet more formidable in its nature, seems to have supplanted it — I mean typhoid fever. I do not recollect to have met with a well marked case of this disease in this vicinity until 1843. When I first spoke of this disease as prevailing among us, my opinion had but little weight with medical men; some contending that they were obstinate cases of bilious fever, and others were disposed to insinuate, that they were original cases of bilious fever, which had not been treated with sufficiently active remedies in the onset of the disease, and as a consequence, had assumed a typhoid character. I frankly confess, that the first cases that came under my observation, were not understood by me. The first patient whom I treated with the disease, I found in a general and warm perspiration; pulse about 90; tongue clean, little or no tenderness over the abdomen, and complained of nothing, but that she felt very weak. I looked upon the patient as being in the treating stage of an intermittent fever, and made a prescription in accordance with that opinion: on returning the next day, I found my patient still

in the same condition, and on inquiring, learned that there had been no intermission since my visit the day before. This state of things continued pretty much the same, until about the 8th day of sickness, when delirium supervened, and, in spite of treatment, my patient continued to grow worse until the 15th day, when death closed the scene. This was the only case in which I was able to obtain a *post mortem* examination, and that was a very imperfect one, in consequence of my having, at the time, a badly inflamed eye, which gave me so much pain during the autopsy, that I was compelled to desist before half completing it. I did not examine the brain nor thoracic cavity. The mucous membrane of the stomach, particularly about the large curvature, was much inflamed; numerous large dark patches studded the arch of the colon; but the most marked lesion was in the small intestines; both the jejunum and ileum bore traces of inflammatory action throughout their whole extent, and there were occasional patches of ulceration about the upper portion of the ileum, which extended to the peritoneal coat, and this one was easily broken down over the seat of ulceration. I treated some 15 cases on one plantation, and had opportunities of marking its onset, progress, &c. The patient would first complain of being very weak, and on inquiry, you would learn that the bowels had been more loose than ordinarily, for several days; the pulse was scarcely increased in frequency; the tongue clean; the skin about natural temperature; in fact, there were so few signs of disease, that had it not been for the distressed countenance and staggering gait of the patients, I would have been disposed to believe they were feigning. This condition would continue, with little or no change, for from 2 to 4 days, when more marked febrile symptoms would supervene, as indicated by increased frequency of the pulse, it having attained 90 or 100 beats in the minute, and the skin having become hotter; the patients during this time, complaining of no pain whatever—except occasionally of a slight pain in the head. There was a peculiar appearance of the eye, in every case which I saw on Mr. C.'s plantation, viz: a remarkable brightness and intellectual expression of that organ. The countenance of the most stupid looking negro, when laboring under this disease, would become kindled with a bright and intelligent expression. This was so much the case, as to attract the attention of the overseer, and it became with him a pathognomonic sign of the disease. The brightness of the eye did not manifest itself, until about the 4th or 5th day of the disease; usually about the 8th day, delirium would set in, and continue until death or convalescence. The delirium, in the majority of cases, was of a mild character, the patient talking in a subdued tone of voice with the eyes closed; the pupil, about this period of the disease, would become contracted. When the patient was fully aroused, he would make rational answers, but soon relapse into the same condition. In every case, there was tendency to loose bowels; tenderness over the abdominal region did not exist in the early stages of the disease, but invariably supervened at a more advanced period. The tongue, in the majority of cases, would remain clean, moist, and natural in appearance, until the 8th, 10th, or even 12th day; then it would become coated with a white fur, the tip and edges being very red, and the papillæ prominent. This

whitish appearance would remain some 2 or 3 days, and gradually merge into a brown dry crust, the edges still continuing of a fiery redness. The lungs were little disturbed in their functions, until the latter stages of the disease, when, in some instances, pneumonic symptoms would develop themselves, as evinced by cough, dullness on percussion, crepitant râle, and, sometimes, the peculiar prune juice colored expectoration of pneumonia. The functions of the kidneys were not materially disturbed, if we place any reliance upon the statements of the nurses. It might be well to mention here, that on large plantations, it is generally a difficult matter to inspect the excretions in a proper manner, in consequence of a want of chamber furniture, &c. The patients did not complain of much thirst, and in some instances the appetite was not greatly impaired throughout the disease. There was usually subsultus tendinum after delirium supervened. The patients lay mostly on their backs.

The first cases that came under my charge, I attempted to relieve by active treatment, but I soon discovered this to be a fatal error. I changed my treatment from energetic remedies to those of a milder character, and was gratified to find the result more satisfactory. I will sum up the treatment that was most successful, as briefly as possible. Early in the attack, an emetic of ipecac was given, followed by a mild cathartic, usually of castor oil, to which was usually added 20 or 30 drops of laudanum; cups and cold lotions were applied to the head; and cups, blisters and poultices to the abdomen; mustard and salt foot baths were used daily; when there appeared to be a deficiency of bile in the evacuations, a dose of blue pill, or hyd. cum. creta. was given, with Dover's powders. In the latter stages, when the pulse became more frequent and compressible, and the impulse of the heart weaker, carb. ammonia, camph. and laudanum in combination, were given with good results. In some cases, where there was dryness of the skin and tongue, and low delirium, I found a combination of castor oil, sps. turpentine, nitre and laudanum, to have a good effect—it was given in tablespoonful doses every 2 or 3 hours. The proportions were such, that in each dose of the mixture, the patient would take a teaspoonful of oil, 30 drops of turpentine, the same of nitre, and 10 drops laudanum—it was given in emulsion of gum arabic. The evidences of its good effect, were, that the tongue became moist, the skin softer, and the delirium gradually abated. In two of the first cases, quinine was given in 5 grain doses, for several days in succession, combined with a little Dover's powder. I became thoroughly convinced that it will not do in such cases; the patients evidently became more restless, the pulse more frequent, and the tongue dryer under its use.* It was dispensed with in subsequent

* Five grain doses of quinine, in such cases, would be more likely to excite the system, than to subdue the disease. At an opportune moment, say a few hours before the evening exacerbation, give from 15 to 30 grs. quinine at a single dose, and the sedative effect will be most gratifying. To administer this salt, in broken doses, and at long intervals through the day, will but rekindle the excitement and prolong the attack. We have adopted the practice above recommended, and have been satisfied with the result.—Ed.

cases, until marked symptoms of convalescence occurred, and then it was given in 2 and 3 grain doses as a tonic. During the whole period of the disease, I allowed my patients good wholesome soup or broth; I am perfectly satisfied, that in the exhibition of food in this disease, it is better to give small portions of a nutritious character than larger quantities, with fewer of the elements of nutrition; I usually directed that 2 or 3 tablespoonfuls of good rich broth, should be given at intervals of 2 or 3 hours during the day. I made it a point to give my patients very little physic during the night. About 9 o'clock at night, an anodyne was given, most generally in an enema; no more medicine was given the remainder of the night, unless some urgent symptom called for it.

It will be perceived, that I have avoided detail, both in the history and treatment of the disease; in the history, I have only brought forward the leading and most striking symptoms, some of them, indeed, were peculiar to the cases treated on Mr. C.'s plantation. In the treatment, I have omitted many of the minor details, which will readily suggest themselves to the experienced practitioner. To have gone minutely into the history and treatment of each case, would have consumed more of the time of this body than I would be willing to occupy. After adopting the practice as imperfectly detailed above, I had but one case to terminate fatally—that occurred on the 14th day of sickness. The negro cabins on Mr. C.'s plantation were much crowded and badly ventilated, some 10 or 12 negroes sleeping in a cabin, and it having but one door and no window.

Every year, since 1843, I have met with and treated cases of typhoid fever, differing in some respects from those detailed above. In the latter, there was less uniformity in the course of the disease. In many cases, delirium would begin earlier, the tongue become dry sooner, and prostration follow more rapidly. A case came under my observation last year, in which the patient had fever about 20 days; he was rational during the whole period—this case recovered slowly. Another case came under my charge, on the 22d day of his illness; a white boy, 10 years old, who had fever 42 days, delirium did not occur until the 30th day of his sickness—he recovered very slowly, having had two relapses from over-eating. I am satisfied that in the treatment of this disease, indeed, as of all others, we cannot lay down a specific course for the treatment of all cases. The age, sex, condition, both physical and moral, former habits of life, all ought to be taken into consideration, in forming our diagnosis, and, consequently, our treatment. It will not do to call a case typhoid fever, and have a certain routine course to pursue in its treatment. It may sound very pretty in theory, but it will not do in practice, if we desire to be successful—and who does not? We must watch our patients, and vary our remedies to suit the peculiarities of each individual case.

Measles made its appearance in this town and vicinity in the month of February, and assumed quite a malignant type. Many of the cases did not seem to possess all the elements of measles—these were the worst cases. The eruption was not in crescentic patches, nor so elevated as we usually find in measles, but much more diffused, and re-

sembling more the eruption of scarlatina, though not possessing all the characteristics of this latter affection. The throat, in many cases, was more affected than we usually find to be the case in measles. The disease appeared to be of a mixed character, possessing many of the elements of both scarlatina and rubeola.

Another eruptive disease manifested itself about the same time, which we termed roseola, for the want of a better name, yet I am not aware that this affection prevails as an epidemic. The eruption was very much like that of measles, only that it was in much larger patches, and large portions of healthy surface intervened between the patches. The constitutional symptoms were very slight; the patients generally complained of drowsiness; there was no heat of the skin, and scarcely any acceleration of pulse. The cases that I saw occurred in individuals who had had measles. They got well in a few days without any treatment.

A few cases occurred about this time, also, which resembled *phrenitis* in many respects, and was termed Brain Fever. I saw but one case, and it wanted many of the characteristics of *phrenitis*: the delirium was not of that violent grade that we see in *phrenitis*; and the pulse, altho' frequent and pretty full, was compressible. There was considerable rigidity of the muscles in the case which I saw—and the delirium was not only not furious, but rather of a pleasant character; the patient, when fully aroused, would sometimes answer rationally. This case did not bear bleeding well—he evidently became worse after venesection, and sunk rapidly, although but about 18 ozs. of blood were abstracted. It might be well to state, however, that besides the bleeding by the lancet, he was extensively cupped on the head and back of the neck. Tart. of Ant. in small portions, combined with calomel, was given; ice to the head; mustard foot-baths; sinapisms and blisters to the extremities. He died on the 5th day, (a negro boy 14 years old,) having become comatose an hour or two before death. There was no *post mortem* examination in the case,

Could these have been masked cases of measles or scarlatina, which did not develop themselves in the ordinary way, but spent all their force upon the brain and spinal column?

I am inclined to think so, for the following reasons: 1st. These cases occurred during the prevailing epidemic, and attacked those who had not had measles or scarlatina, and the symptoms differed in many essential respects from ordinary brain fever. And 2dly. I have never known or heard of brain fever prevailing as an epidemic, and there were too many cases to be merely accidental.

A negro boy of rather delicate constitution, about 15 years old, complained of severe head-ache, and of the most acute pain in the left side, apparently in the region of the spleen. His countenance was extremely anxious; his breathing irregular; he coughed frequently, and spat up large mouthfuls of mucous; each expectoration was so large and thin, that on spitting on the floor, it would spread over a space of several inches in diameter. There was dryness and heat of the skin; the tongue was coated with a whitish fur—the chest sounded clear on percussion—pulse 140 and tense; there was excessive restlessness, and

*This disease was Cerebro-spinal Meningitis. The
author has doubtless learned since that a brain fever*

great dread of death. I bled him from a large orifice, to about a pint, which relieved the pain in his side, and he expressed himself as feeling much better. His bowels not having been moved for 24 hours, I ordered a dose of comp. cath. pills, nitre and balm tea, and mustard foot-bath. He was much better in the morning; but about 2 o'clock, P. M., complained of violent pain in the same region—pulse again 140, full, somewhat corded, respiration hurried and irregular, and could not take a full inspiration; restlessness and anxiety as before. Bled again to about a pint, when he complained of being sick—cupped him over the seat of pain, and applied a blister; the pills had operated 2 or 3 times; tongue less furred; the bleeding, in course of half-an-hour, reduced his pulse about 20 beats. Pres. Cal. 2 grs.; Tart. Ant. $\frac{1}{4}$ gr.; Nit. Potass. 5 grs.; Dov. Pulv. 2 grs.; to be repeated every 2 hours until free perspiration supervened. Called 3 hours afterwards, found him in free perspiration; he had taken but one dose of the medicine; had vomited 2 or 3 times; and the bowels had acted twice; pulse 120, soft and compressible. On closer examination, I found his extremities rather cool, but could discover nothing indicating immediate danger. I directed him to have a stimulating foot-bath—and a cup of coffee, as he desired it. Thinking the necessity might arise for the use of stimulants, I asked his master if he had any spirits in the house. He said, no, but he could step down town and obtain some. I told him to do so, and on his return, if he found him still with cool extremities, and feeble pulse, to give him some toddy, and that I would call again in 2 hours. The old gentleman, on his return, learned from his wife that Amos was better—he had sat up to bathe his feet; had drank his coffee; and that she had left him asleep, being confident that he was much better. The old man concluded, however, that he would step into the negro house and see him—he found the boy lying on his left side, apparently sleeping; he called to him 2 or 3 times, and asked him if he did not want a dram. In the language of his master, he flitted over on his back, gave two or three convulsive jerks, saying, "Yes sir! Yes sir!" and died as suddenly, as if he had been shot through the head. I earnestly solicited a *post mortem* examination, but it was denied me.

Was the pain complained of in the diaphragm? Was the phrenic nerve involved, or was the sudden death occasioned by effusion in the lower part of the brain and medulla oblongata?

Another case, which terminated fatally in a sudden manner, illustrates the importance of extending our examination to regions apparently not involved in the case. An interesting boy, some 9 or 10 years of age, was seized on the night of 27th November, with symptoms of phrenitis. He was visited by my partner, Dr. Ulmer, who treated him some 3 or 4 days. I was absent from town during this period, and saw him first on the 30th—he was said to be better. I found him delirious, frequently uttering intense screams, his countenance was rather pale; pupils contracted; pulse 140, somewhat tense; temperature exalted and skin dry, with slight coolness of the extremities; his tongue was dry; he had been pretty actively depleted; cold lotions and ice had been constantly kept to his head; a blister applied to the back of the neck, and his bowels well opened with purgatives; he was ordered small doses of

Cal. Tart. Ant. and Dov. powder, to be given every 4 hours; cold applications to be continued to the head, and mustard foot-bath to be used several times a day. Under this treatment, the delirium gradually subsided—the skin became soft and moist, and of natural temperature; the pulse fell to about 100; his bowels were gently moved, the evacuations being consistent and of a dark bilious character; the urine was somewhat deficient in quantity, and high colored. During the next 3 or 4 days, with some slight modifications of treatment, he was apparently convalescent. I continued to visit him however, inasmuch as I had to pass the door of his room every day; I had discontinued medicine for 2 or 3 days. On Friday night, the 12th day of his sickness, his mother sent me word that he was restless, and requested that I would send something to make him sleep. I visited him, and found him quite talkative, and indisposed to sleep; pulse about 100: no heat of skin; but more thirst than he had for several days. I learned that his bowels had not been moved for 24 hours; and that during the day, when his mother was out of the room, he had gotten up and dressed himself. I gave him 5 grs. Cal. and the same of Dovers powder. On visiting him next morning, I learned that he had rested well. He was, however, at that time, asleep; I called again soon after: he was awake and cheerful, lying on his back and trimming his finger nails. Ascertaining that his bowels had not been moved, I ordered an enema; his pulse was 110, skin somewhat dry; I directed him to take 2 grs. quinine every 3 or 4 hours. About 2 o'clock, I was summoned hastily to visit him; the messenger stated that he was dying. I hastened to his room, it being but a hundred yards from my office. On reaching there, his mother said she believed that she had been unnecessarily alarmed—that while over the chamber to urinate, he had fainted, but was now relieved. The little fellow remarked, himself, that his mother had got frightened and had frightened him. I found his pulse rather feeble, irregular, and about 130; he was restless, occasionally sighing, countenance pale, his bowels not having yet been moved; I ordered another enema, and took my seat by his bedside, while his mother went out to prepare the injection. A little dog had followed me into the room, and the little boy raised himself on his elbow to play with him, at the same time talking to me, in a very lively strain, of a dog which he had when in the country. I told him he was talking too much, and to try and go to sleep. He said he would, and lay back on the bed. I observed, at this moment, a dancing of the eye-balls, and a general convulsive movement of the body, not violent; this continued about half a minute; he then gave 3 gasps, and was dead. Death was so sudden and unexpected, we were very anxious to obtain a *post mortem* examination, which was finally granted us.

The brain was the organ first examined, and we were disappointed in not finding more extensive lesion in the cavity of the skull. The blood vessels, it is true, were somewhat *distended*, and the arachnoid membrane bore traces of inflammatory action, and the substance of the brain was softer than natural. There was no effusion in the cavity of the skull or in the ventricles. On examination of the Thoracic cavity, we found the lungs perfectly healthy. The pericardium was *distended* to its utmost, and on opening the sac, it was filled with serum, and

could not have been long effused, if thinness and fluidity indicate recent effusion. The muscular structure of the organ was considerably altered, it being soft and flaccid. There was no effusion into the cavity of the chest. The stomach and bowels were healthy. The liver appeared to be healthy when cut into, but seemed to be swollen: this organ, however, I believe, is described as being proportionably larger in children than in adults. I repeat, that this case should teach us to examine closely our patients, even when we are convinced that we are correct in our diagnosis. The *post mortem* examination revealed greater lesion in the cavity of the chest, than in that of the skull, and yet our treatment had been mainly directed to the relief of the brain. High authority tells us that we are not the first who have committed a similar error. Dr. Latham speaks of cases which were treated for inflammation of the brain, and on dissection that organ found to be perfectly healthy; but on examination of the chest, it was found that intense pericarditis had existed. In our case, inflammation of the two organs existed conjointly, and the delirium, being so violent, attention was directed almost exclusively to the brain, and at the same time prevented information from being obtained from the patient himself—though if the chest had been carefully examined, the physical signs would have been sufficient to satisfy us, that serious lesion existed in that cavity.

The past summer has been the healthiest we have ever witnessed in the town and vicinity. After the measles and other eruptive diseases, and their sequelæ, had ceased in the spring, we had but little to do in the way of practice the remainder of the season. A few cases of mild typhoid fever, with an occasional bilious or obstinate case of intermittent fever, were all, we encountered during the summer. I say obstinate intermittent, as we are only called on to treat that class of intermittents, those of a milder type being treated by the patient or his friends. It is now becoming a popular remark in this section of the country, that the winter has become our sickly season, and my own practice for the last three or four years would justify such a conclusion. My charges in the winter months have exceeded those of summer, and the diseases are unquestionably more fatal. I well recollect, in the earlier years of my practice, that frost was looked for with much anxiety, and its appearance hailed as a blessing to the community, as it generally arrested all febrile diseases of a dangerous type. Pneumonia was then a rare affection, and typhoid pneumonia as rare as a case of Tetanus; now both diseases are common during the winter, indeed, I occasionally meet with a case of pneumonia in the midst of summer. I know that it is the opinion of many highly respectable and intelligent practitioners, that the cause of the lessened fatality in our summer diseases is owing to a better method of treating them, and that we do not meet with virulent cases now, because, by our superior treatment, we do not allow them to run into a bad form. I will readily concede that there has been great improvements made in the treatment of our summer fevers, particularly in regard to the exhibition of quinine; but at the same time I am satisfied that we do not have them of the same formidable type, nor near as many cases. It is not unreasonable, either, that this should be the case. A few years back, and tracts of country which were then dense

* If the individual had been examined...

forests are now well cultivated corn and cotton fields. During the time that all this timber was undergoing decay, and a virgin soil for the first time turned up with the plough, and exposed to the sun, is it not reasonable to infer that malaria of a more pernicious nature was generated *then* than *now*, when *time* and *fire* have removed these prime agents in the production of disease?

IV.—LITHOTOMY — *High Operation; Extraction of a Calculus, measuring 7 inches 7 lines in circumference; Recovery.* By C. DE VALETTI, D. M. P. of New Orleans.

On the 28th of May, 1849, assisted by Drs. Turpin, Landreaux, and Delery, and in the presence of Dr. Cross, I performed the "*high operation*" for stone in the bladder, upon a colored man, named Philip Plique, who had been suffering, in all probability for the last eighteen years. I had every reason to believe, from frequent soundings, that the stone was very large.

The patient requesting to be put under the influence of chloroform, and all the necessary preparations being made, the bladder examined, and the presence of the stone detected by the assistants, I then with a convex bistoury, made along the middle of the linea-alba, an incision four inches in length, terminating at the symphysis of the pubis. The skin was first divided, then the linea-alba, as deep as the line of separation of the recti muscles; I did not at first fall in with the linea-alba, having deviated a little to the right; I nevertheless promptly arrived, without obstacle and without injury to the peritonium, into the cavity of the lesser basin, on the anterior face of the bladder. This being done, I introduced the *sonde a dard*, and after some difficulty succeeded in getting it to penetrate into the urinary pocket, (the stone filled the entire cavity of the body and neck.) The end of the sound being felt through the coats of the bladder, and kept stationary by the thumb and index of the left hand, I requested the assistant holding the sound to press gently on the dart, which, transfixing the walls of the bladder, soon made its appearance in front of the pubis.

Then laying aside the convex bistoury for a straight one, I introduced it into the groove of the dart, thence into the bladder, making a free opening; this being accomplished, the dart was sheathed and the sound withdrawn, care being taken to support with the left index the upper angle of the incision. I was, in the mean time, preparing to employ Delmas' suspensory, when I became convinced that the volume of the stone was so great as to effectually prevent the escape of the bladder by contraction. Proceeding then to the extraction of the stone, it

became evident, from its volume, that the forceps could be of no possible service. I therefore had recourse to my fingers. I also perceived that my first incision, though large, was insufficient; I therefore enlarged it above, my left index performing the office of conductor. This not yet sufficing, I again made another below, toward the neck of the bladder. Here arterial blood made its appearance in sufficient quantity to constitute a hemorrhage, though not very abundant. This accident, though mentioned by authors, is rare in the operation for stone by this method. The seat of the hemorrhage, as I was fully able to satisfy myself after the extraction of the stone, was from the plexus of arteries and veins surrounding the neck of the bladder, which, in this case, was so much enlarged as to be able to contain, for years, the neck of the stone, measuring five inches in circumference, (the vessels themselves were no doubt dilated in the same proportion.)

But let us return to the extraction. After having several times turned the stone, I was at length enabled to place it in the most favorable position; the summit above and the base below exactly in the direction of its greatest circumference, (seven inches, seven lines—the base being about seven inches.) (?) It was not until after repeated efforts that I succeeded in engaging the stone into the opening made into the bladder. I however, at last, succeed, and thought myself master of it when a new obstacle presented itself; this was an obstinate contraction of the recti muscles, to such an extent, that, fatigued with useless efforts, I was on the point of making a tranverse incision, when, with the timely aid of Dr. Turpin's finger, the stone was at length disengaged. On examining the volume and form of the stone, we were not astonished at the length of time required for its extraction, which, notwithstanding all of the difficulties encountered, did not quite occupy twenty-nine minutes.

I have already remarked that the blood flowed from the bottom of the incision. On applying my fingers, and exercising compression against the pubis, the blood ceased to flow. Here, then, was an indication for the establishment of a permanent compression; this was accomplished by a piece of sponge (through which a thread had been previously passed) being pushed down, at the same time keeping up gentle pressure on the neck of the bladder. The hemorrhage ceasing, the patient was left quiet, with nothing more than a dressing of compresses wrung out of cold water, and a simple body bandage to retain them.

At my visit in the evening, I learned that he urinated in a stream through the urethra, (*en jét*), which I attributed to the compression exercised by the sponge, and the occlusion by the sponge of a part of the opening made into the bladder. The urine overflowing from the wound was only slightly tinged with blood. I withdrew the sponge to examine into the state of the hemorrhage, and after waiting some time, there being no return of the bleeding, I concluded to withdraw the sponge. From that moment, until he was entirely well, the only dressing made use of, was a few strips of adhesive plaster, for the purpose of keeping the lips of the upper angle of the incision in contact.

The patient is now, (5th July) going about perfectly well. He has been, moreover, cured of a vesical catarrh, which had tormented him for a number of years, giving rise to an abundant muco-purulent discharge.

New Orleans, July 12th, 1849.

Calculous disease is a rare affection in this latitude, and the above case is the more interesting on that account. We inspected the stone extracted by Dr. DeValletti, and found it to be very light, the composition being ammoniaco-magnesian phosphate, in all probability. Its weight exceeded four ounces, and shape oval. The smaller extremity was closely impacted into the neck of the bladder, yet the stone was removed entire. The operation is highly creditable to the surgeon who performed.—ED.

REPORT,

V.—ON THE *prevailing diseases of (a portion of) Dallas Co.* Read before the *Alabama State Medical Association, at its sitting in Wetumpka, on the 7th and 8th of March, 1849.* By F. A. BATES, M. D., of Dallas Co., Ala.

[Published by order of the Association.]

IN accordance with the duty assigned me by the Association, the following tabular statement of the diseases of my locality, with a few incidental remarks, is most respectfully submitted :

As a preliminary, allow me to say a few words regarding the topography of the country. The section in which the diseases subjoined were treated lies in the north-west corner of Dallas County, including a small slip of the southern portion of Perry, and resembles, in figure, an irregular parallelogram, embracing a scope of country about eleven miles in extent from north to south, and about fourteen from east to west, and including a population of nearly two thousand, nine-tenths of which are slaves.

The eastern limit is Cahawba river; the western is a large stream called Mud-creek; Bogue-Chitto runs a southerly course between the two, and joins the creek near the south-west corner of this section, receiving in its course numerous small tributaries. The surface of the country is gently undulating, and traversed with sloughs that convey the water to the larger streams, but during the summer they are generally dry.

The soil is the rich alluvion of the cane-brake, varied somewhat in fertility and color, but generally of a brown or deep chocolate color, while portions adjacent the sloughs are nearly black. Some of the most

elevated portions are destitute of timber, and only covered with grass, herbs and shrubs, having a light colored soil, composed of more than 50 per cent. of lime; these are termed "bald prairies." The growth of timber is the same as that of the greater portion of the cane-brake, consisting of oak, ash, hickory, gum, &c. During the winter or rainy season, the sloughs and streams are abundantly supplied with water, which inundates extensive swamps that lie on either side of them; but during the summer they are nearly dry, while the little remaining water stands in holes. The great amount of water used by man and beast is afforded by artesian wells, and is a mixture of freestone, lime, chalybeate, and sometimes of sulphur water. This section consists of large bodies of cleared land, with extensive plantations, many of which have been opened a long time, but are annually increasing in size.

The subjoined list of cases occurred in a practice of five and a half years, and are noted down as well marked cases of disease. Many others, that required temporary treatment only, were seen but once, and consequently were not considered as worthy of a place in the list of those that demanded several visits, and a systematic course of treatment.

In referring to my case-book, I find recorded 1013 cases of disease, of which number there died 67.

Of these there were of

	No. Cases	Deaths		No. Cases	Deaths
B. Remit. Fever	- - -	184 2	Puerperal Peritonitis	- - -	1 1
Congestive "	- - -	17 5	Hepatitis Acute	- - -	3 1
Typhoid "	- - -	16 8	Do. Chronic	- - -	10 0
Infant. Remit. "	- - -	10 5	Nephritis Acute	- - -	2 0
Intermit. "	- - -	90 0	Do. Chronic	- - -	1 0
Scarlatina	- - -	32 3	Nephralgia	- - -	4 0
Rubeola	- - -	14 1	Cystitis	- - -	1 0
Pneumonia	- - -	29 3	Gonorrhœa and Gleet	- - -	22 0
Pleuritis	- - -	9 1	Orchitis	- - -	3 0
Bronchitis Acute	- - -	30 0	Cornitis	- - -	10 0
Do. Chronic termi-			Conjunctivitis	- - -	8 0
nating in Phthisis	- - -	3 3	Iritis	- - -	2 0
Rheumatism Acute	- - -	7 0	Amaurosis	- - -	1 0
Do. Chronic	- - -	16 0	Nyctalopia	- - -	2 0
Trachitis	- - -	2 0	Phrenitis	- - -	1 0
Laryngitis	- - -	3 0	Endo-Carditis	- - -	1 0
Tonsillitis	- - -	8 0	Hypertrophy of the Heart		4 1
Gastritis Acute	- - -	6 1	Chronic Engorgements, Ul-		
Do. Chronic	- - -	2 0	cerations, Indurations of		
Enteritis Acute	- - -	2 0	Uterus	- - -	13 0
Do. Chronic	- - -	2 0	Amenorrhœa	- - -	6 0
Intestinal Irritation, inclu-			Dysmenorrhœa	- - -	4 0
ding Diarrhœa and Ma-			Leucorrhœa	- - -	30 0
rasmus	- - -	28 6	Menorrhagia	- - -	8 0
Peritonitis	- - -	1 0	Procidentia Uteri	- - -	17 0

	No. Cases	Deaths		No. Cases	Deaths
Metritis - - - - -	4	0	Paraphymosis - - - - -	2	0
Accouchment - - - - -	55	0	Ante-Version Uteri - - - - -	5	0
Of which there were —			Paracentesis Abdominis - - - - -	1	0
1st. Position Baudeloque - - - - -	33	0	Stricture of Urethra - - - - -	7	1
2d. do. - - - - -	5	0	Extensive Burns - - - - -	5	3
Breech Presentation - - - - -	3	0	Severe Contusions - - - - -	2	0
Arm do. - - - - -	1	0	Pregnancy with remarka-		
Foot do. - - - - -	1	0	ble Nervous symptoms	1	0
Hand presenting with head	1	0	Fracture Humerus - - - - -	1	0
Tedious Labor - - - - -	10	0	Do. Radius - - - - -	2	0
Descent of the Funis with			Do. Ulna - - - - -	1	0
Head - - - - -	1	0	Do. Tibia - - - - -	1	0
Abortions - - - - -	5	0	Do. Jaw - - - - -	1	0
Retained Placenta - - - - -	4	0	Do. Cranium - - - - -	1	0
Rupture of Uterus - - - - -	2	2	Do. Scapula & Ribs	1	0
Hysteria - - - - -	4	0	Dislocation Humerus - - - - -	1	0
Epilepsy - - - - -	6	0	Do. Radius Anter.		
Neuralgia Facial - - - - -	8	0	Elbow - - - - -	1	0
Do. Uteri - - - - -	5	0	Amputation Thigh - - - - -	5	0
Do. Spinal - - - - -	1	0	Do. Fingers - - - - -	2	0
Do. Lower Extre-			Excision Tumors - - - - -	7	0
mities - - - - -	2	0	Ligature Arteries - - - - -	2	0
Mania-a-Potu - - - - -	5	0	Fungus Hæmatodes - - - - -	1	1
Tetanus - - - - -	2	1	Couching Cataract success-		
Trismus. Nascentium - - - - -	9	8	fully - - - - -	1	0
Mania - - - - -	2	0	Gun-shot Wounds - - - - -	3	0
Paraplegia - - - - -	3	1	Incised do. severe - - - - -	10	0
Hemiplegia - - - - -	3	1	Venomous Stings & Bites	7	0
Anemia - - - - -	18	0	Imperforate Anus - - - - -	1	0
Acne - - - - -	1	0	Union of Nympha and Oc-		
Scabies - - - - -	5	0	clusion Vagina - - - - -	1	0
Eczema - - - - -	4	0	Carbuncle - - - - -	1	0
Urticaria Febrilis - - - - -	4	0	Inflammation Parotid and		
Herpes - - - - -	2	0	Sub. Max. Gland - - - - -	7	0
Scrofula - - - - -	4	0	Concussion Brain - - - - -	1	0
Apoplexy - - - - -	3	1	Oblique Ing. Hernia - - - - -	5	0
Diphtheritis - - - - -	2	0	Operation Strang. Fem.		
Coup-de-Soleil - - - - -	2	0	Hernia, successfully - - - - -	1	0
General Dropsy - - - - -	8	5	Tænia Solium - - - - -	1	0
Congestion Brain - - - - -	2	0	Whitlow and Bone Felon	6	0
Diseased Sebaceous Glands	3	0	Renal Calculus - - - - -	3	0
Suspended Lochia - - - - -	2	0	Urinary do. - - - - -	1	0
Spermatorrhœa - - - - -	1	0	Varicocele - - - - -	1	0
Phosphatic Diathesis - - - - -	1	0	Phlegmasia Dolens - - - - -	1	0
Disease of Ischium - - - - -	1	0	Hydro-thorax - - - - -	1	0
Inflammation Synovial			Phlegmonous Inflamma-		
Memb. Hip - - - - -	1	0	tions - - - - -	9	0
Coxalgia - - - - -	1	1	Operations Club-foot - - - - -	2	0
Retention Urine - - - - -	3	0	Bilious Colic - - - - -	3	0
Convulsions of Infants - - - - -	5	0	Varicose Veins and Ulcers	4	0

No. Cases Deaths							No. Cases Deaths						
Syphilis	-	-	-	-	-	5 0	Prolapsus Ani	-	-	-	-	1 0	
Chlorosis	-	-	-	-	-	3 0	Lacerated Wounds (severe)				9 0		
Epistaxis	-	-	-	-	-	2 1	Inflammation and Abscess						
Constipation	-	-	-	-	-	5 0	Mammæ	-	-	-	8 0		

Bilious Remittent Fever.

From unavoidable circumstances, I shall be compelled to limit my remarks to a few of those diseases that come under the observation of all physicians, leaving many interesting individual cases for some future time.

As bilious remittent fever stands prominent among the diseases of this climate, I will make a few remarks pertaining to my course of treatment.

Since the introduction of quinine in increased doses, into the treatment of fever, has wrought an entire change in the plan formerly adopted by practitioners, every argument that can be brought to bear upon the utility of its application should be advanced in its support. I suggest nothing new, but only confirm by a repetition of what others have done, the correctness, simplicity and efficiency of their treatment.

I pursue a mild antiphlogistic plan, administer hot mustard pediluvia, cold applications to the head when there is excitement of the brain, sponge the body with cold water, and allow cool mucilaginous drinks, with small portions of carb. soda or potash dissolved in them.

The alkali has a tendency to relieve the thirst much more than acidulated drinks, and from the amount of carbonic acid contained in it, has, no doubt, a favorable effect in correcting morbid secretions.

After producing an open state of the bowels by a mild cathartic, which consists in part or entirely of mercurials, a gentle diaphoretic, or if there is an irritable condition of the stomach, the effervescing draught is administered until there is a cessation or remission of the febrile symptoms. So soon as this has taken place, sulph. quinine, in doses of from 3 to 5 grs., together with a little morphia or Dover's powders, if not contra-indicated, are given every 2 hours. If, after a few doses have been administered, the fever rises, this combination is omitted, and a resort to those means that will subdue the paroxysm, as above stated, is relied on, until a second remission occurs, which is generally longer than the first. Should there be some little excitement, which creates a doubt with regard to the early employment of quinine, I have invariably found a small portion of ipecac. and morphia combined with it, a most valuable adjunct, never failing to produce softness of the pulse, quiet, and gentle diaphoresis. The bowels are kept open daily with mild laxatives, but active purgation is carefully guarded against. By pursuing this course as a general plan, subject to modification, of course in complicated cases, I have rarely ever failed, in the course of 4 or 5 days, in subduing very severe and threatening cases.

General blood-letting is rarely ever practiced, but in some cases complicated with engorgement of internal organs, local depletion is substituted, and has been the means of relieving the urgent symptoms that demanded its use, and of hastening the convalescence of the patient.

Typhoid Fever.

Of the 16 cases of typhoid fever that came under my notice, 6 were whites and 10 were blacks; all adults. Of the former, 3 proved fatal, of the latter, 5. There were 2 cases occurring among the whites, and the same number among the slaves, that I term malignant typhoid, in contra-distinction to the others, from the severity of the symptoms and the rapidity of their course. The symptoms were different from those we usually see in typhoid fever, and in some respects assimilated those of malignant bilious fever. It is a difficult matter, I apprehend, to explain this combination of appearances, unless we suppose that the causes which produce remittent fever, modified considerably the idiosyncrasy of the individual in whom was developed the typhoid type.

The first case of the malignant typhoid type that came under my notice, was in October, 1847. The individual was a laboring man, of good habits, and ardent temperament, æt. 35. For a few days previous to his confinement, he felt languid, with a disposition to refrain from labor, but did not until the day before he took his bed. There was a slight rigor, followed by sensations of heat and cold alternately, on the first day of his confinement, but he took only a mild laxative.

On the second day I saw him for the first time: he was delirious and rather restless, pulse 80, respiration 24, skin slightly above the natural temperature, dry, and generally of a dusky color, showing great inactivity of the capillary circulation; tongue rather dry, coated brown, and rather large, with numerous furrows running in every direction over the surface; his eyes were slightly injected, and there was a little dilatation of the pupils; head rather hot, but no particular excitement of the carotids; the abdomen was slightly distended, and there was little pain on pressure. I directed a mercurial cathartic, which opened the bowels freely; the stools were quite natural, and gave evidence of sufficient biliary secretion; I cupped him freely to the nucha, applied sinapisms* between the shoulders and to the extremities, alternating with foot-baths every 3 hours. In addition, I gave internally, $\frac{1}{2}$ ounce of acet. ammon. with a little spts. nitre. every 2 hours, and carb. soda. 20 grs. dissolved in a tumbler of thin mucilage when he wished to drink.

On the third day there was a slight change; he had had an exacerbation of fever during the night, but it had subsided, and the temperature was about natural; the tongue was drier, delirium about the same, pulse and respiration not changed. The duskiess of the skin was greater, if anything, and there was more difficulty in engaging his attention and drawing answers to questions, than on the previous day;

* Some practitioners apply sinapisms to every part of the surface, without much regard to its temperature or the seat of the affection. To cover a hot and dry skin with mustard, is certainly to aggravate the heat and add to the excitement, because we thus create many points of irritation, that must augment the sufferings of the patient and prolong the febrile stage. Sinapisms *inter-scapulas*, and to the *nucha* in cases of cerebral engorgement or excitement, tend powerfully to increase the mischief and endanger the structure of the brain. They have been known to produce speedy death, when applied to the nape of the neck, in attacks of violent cephalalgia.—Ed.

bowels open, stools natural; still slight tenderness over the stomach and bowels on pressure; gargouillement; eyes still injected; features contracted with great duskiness of the cheeks, considerable ringing of the ears; much thirst. I directed 4 blisters to be applied to the extremities, and one to the epigast. and abdomen, until those of the extremities produced their full rubefacient effect; while that on the epigast. was to remain to vesication, and then to be dressed with a cerate of quinine. I administered, internally, 5 grs. blue-pill, and directed 15 grs. carb. ammon. and 5 grs. quinine to be given every 2 hours, and brandy and water frequently.

On the fourth day he was worse; pulse 93, and respiration a little accelerated; tongue dry and parched; skin cooler than natural; eyes brighter than common; brain more active; more restless; slight subsultus tendinum; had slept none for 30 hours; bowels open once, stools still natural; he had a slight exacerbation of fever during the night, which subsided without perspiration. I applied the blisters again to the extremities, continued the carb. ammon. and quinine, though the latter was increased to 10 gr. doses every 3 hours; kept up the brandy and water, and gave an enema of spts. of terebinth.

Notwithstanding the active treatment pursued, the energy of the system became greatly oppressed,* the pulse became small and frequent, the respiration laborious, the skin cool and inelastic, and he sunk rapidly for 4 hours; became almost pulseless, and was considered at one time to be dying.

As a dernier resort, a blister of concentrated aq. ammon. was applied to the nucha, and opium and camph. were added to the carb. ammon., with apparently the best results.

The pulse in a short time became stronger, but was fluctuating—now quite appreciable, and then indistinct; but a persistence in this course gave some hope of his passing the crisis, which he did, and on the 5th day became so much better, that hopes were entertained of his recovery.

On the night of the 4th day, there was no exacerbation of fever; and on the morning of the 5th, the tongue became more moist, and the delirium left. From this time the amendment was slow but gradual for two weeks, terminating in recovery.

The next 3 cases were still more violent than the preceding one. Two of them had premonitory symptoms of fever for nearly a week, but were not detained from their daily duties. On the first day of their confinement, the attack was ushered in with a chill of no great severity, followed by considerable fever, which was distinguished by a slight remission, followed in 12 hours by a second exacerbation, which prostrated the energy of the system entirely. In these two cases, from the moment the exacerbation was the highest, there was a gradual decline of the powers of life, until complete prostration ensued, and death followed in a few hours.

* Asthenia?—Ed.

In one of these cases, the tongue was smooth, clean and dry; slight tenderness on pressure over the stomach and bowels, particularly on the right side.

In the other the tongue was a little more furred than natural, for the first few hours moist, but after awhile became dry; the abdomen was fuller than common, and the patient shrunk when firm pressure was made. In both, the skin was most of the time a little above the natural temperature, dry and of a dusky hue; respiration from 25 to 30; pulse from 80 to 95; eyes injected; pupils sometimes a little dilated, but at times there was sensibility to the impression of light. There was delirium, "tinnitus aurium," subsultus tendinum, and restlessness; bowels open with natural stools; gargouillement, or that gurgling of the contents of the bowels, which is considered by some authors, as an ever attendant upon cases of typhoid fever was present, as in the first case.

The indications of treatment were in my opinion, to equalize the circulation, allay the local uneasiness, and pursue a supporting treatment. The first was done by the application of sinapisms and blisters to the extremities; the second by cupping and blistering; the third by the administration of quinine, camph., opium and brandy, in doses proportioned to the seeming wants of the case.

Notwithstanding the treatment, without any appearance of relief they grew worse, and died in 72 hours after my first visit.

The fourth case was quite similar to the two last, but was not so severe. The same treatment was relied on, and a happy result crowned my efforts, though the convalescence was slow.

These cases were remarkable for their severity, and the little apparent change in the functions of the secretory organs and the circulation. In some respects, they favored aggravated cases of bilious remittent fever; in others, they bore the habitudes of typhus. During the last few hours, the countenance presented that peculiar pinched and contracted state of the features which we ever find in the latter disease.

In the other cases of typhoid fever that came under my attention, there were seen distinctly marked the peculiarities of the disease as described by others. The individuals, without an exception, exhibited the following symptoms, though not all to the same degree: a shrivelled inelastic state of the skin, of a dusky color, rarely ever moist and not much above the natural temperature. Respiration almost natural, sometimes a little accelerated; pulse from 78 to 90 in the first stage of the disease, and rarely ever reaching 100, unless in the last stage of the affection. Frequently in the after part of the day, the volume, quickness and frequency of it would be increased. The tongue generally slightly furred at first, but as the disease progressed, became browner, more furred and dry. The eyes were injected, with redness of the lids, and possessed at times, unusual brilliancy of the cornea. The pupils, for the first few days, were generally of the natural size, but frequently they became contracted and there was extreme susceptibility to the impressions of light. The intellect, though clouded, as was evinced by incoherency of thought and expression, was at times quite clear, more particularly in the morning. When delirium supervened, it generally

appeared first at night, and progressed daily. In most cases, but little pain was complained of, though at times uneasiness was manifested when pressure was made over the ileo-cæcal region. In all these cases, gargouillement was present to a greater or less extent. Tinnitus aurium was one of the most annoying symptoms to the patient, and he would complain of inability to sleep on account of it. In two instances deafness occurred in the last stage.

There was but little difficulty in maintaining a laxative condition of the bowels, and the stools in many instances, were to all appearances, natural. In others, they were quite natural for a few days, and would then change to a dark brown or almost black color. In one case, bloody stools, with mucous, appeared, though not frequently, and in a short time became quite natural again.

The urine in all the above cases was rather scanty, and heightened in color, sometimes rather turbid, generally depositing on cooling lithic acid. The treatment pursued in these cases, in the main, was mild and expectant. Where much fixed pain was present, cups were applied, and if not relieved, blisters followed. Sinapisms frequently repeated produced the happiest effects. Laxatives were occasionally used, to free the bowels from accumulations. The prostrated condition of the patients forbade any thing like active treatment, and I relied wholly upon the resources of the system for a restoration of its powers, contenting myself with watching the mode or tendency to death, as Cullen expresses it, and counteracting its direction by a mild supporting treatment.

Congestive Fever.

The term congestive fever has become so common through the Southern States, that I am inclined to believe there are many who think it a disease as distinct from bilious remittent and intermittent as is continued fever, and that there is no peculiar relation existing between it and the former named types. The term congestive or congestion is a relative, and, when applied to fevers, should be qualified. We call the cold stage of intermittents congestive, the preceding rigor of remittent fever, congestive, that determination to certain organs during the hot stage, congestive. Now, certainly, the term cannot be applicable in all these cases without qualification, and when we hear of so many cases of congestive fever occurring in a particular locality, we are at a loss to understand whether they were cases of active or passive congestion—of real adynamia, or such as accompany febrile action, with an acute engorgement of some organ. Although I use the term myself from custom, I believe it inappropriate—in fact a misnomer, because in genuine cases of the disease under consideration, I have rarely ever seen reaction brought about to such a degree as to produce that condition we find in an exalted state of the system, and which we call fever. What, then, is this disease? Is it a fever *suigeneris*, or is it a condition that may accidentally obtain in other diseases? My own opinion is, and it was expressed in an essay on this subject more than three years ago, that it is a condition that may easily obtain in cases of remittent and intermittent fever; that it is essentially adynamia and nothing else. If an individual receive a severe injury, or is poisoned by any of the

narcotics or antimony, we find many of the same symptoms, only perhaps they do not continue so long, or are not so intense as in what is termed congestive fever; reaction comes on sooner, and the individual is relieved of the symptoms of adynamia, while those of hyperdynamia take their place. In what is termed congestive fever, the same symptoms appear, only aggravated, while many others are added from greater lesions of innovation, and the system, from its depressed condition, does not allow complete reaction to take place, unless assisted by therapeutic agents. We find the patient in these cases restless, frequently turning from side to side; uncovers himself; complains of great heat; has intense thirst, demands water often, declares, in most expressive language, he is burning up. Upon close examination, we find the skin cool, pale, and perhaps covered with a clammy exhalation and shrivelled like the hands of a washer-woman. On the back and sides, where pressure is made, a livid or motley aspect presents itself. The extremities, ears and nose are icy cold. The eyes are red, and the countenance betrays the greatest anxiety. The respiration is more frequent than ordinary—sometimes slower, but laborious; there are frequent sighings, with expirations like one out of breath. The pulse is small, and more frequent than natural, and in the most violent cases is imperceptible at the wrist. The heart beats tumultuously, as if encumbered with a load. The tongue is often furred white or yellowish, frequently large and flabby, sometimes there is great fullness of the epigast, and no relief is obtained until the individual has vomited freely. Diarrhœa is of frequent occurrence, and after two or three dejections, the stools are watery and filled with flocculi. The intellect is sometimes clear to the last. In this array of symptoms, we not only find those that arise from severe mechanical injuries, but many more added. In the one case, the part injured has transmitted the impression along the afferent nerves to the cerebro-spinal axis, only to a certain degree, but in proportion to the susceptibility of the individual and the severity of the shock, do the symptoms of adynamia prevail. The same with regard to poisons occur, and their peculiar tendencies to certain organs produce the symptoms peculiar to their nature; thus, all the narcotics manifest their action upon the brain primarily, though their secondary actions are not alike; strychnia excites the muscular system; antimony produces intense peristaltic action of the stomach and bowels, with cramps and exhaustion, and so with many other substances that have peculiar action on the animal economy. In the other case, miasm, or whatever the morbid cause is that produces this adynamic condition, enters the blood, and in its circulation permeates every molecule of matter, and thereby produces a most tremendous depressing influence on the cerebro-spinal axis and the whole nervous system.

The heart, though not so easily affected in its functions, suffers adynamia to a certain extent.

Is it at all surprising that a substance so highly organized as nervous matter should suffer by such a change of the healthy blood into a vitiated fluid, or when changed, the most alarming symptoms should ensue? This change in the cerebro-spinal-axis is a *sine qua non* to the production of adynamia, and it matters not how it is done, whether by

mechanical injuries, poisons, mental emotions or miasm. It may even occur in mild cases of fever, which have been badly treated by persevering in the use of those agents that have a pernicious and depressing effect. If it were a peculiar disease, and not a condition, would we not find a tendency to seat itself in some organ or organs? Would we not discover some symptoms that might be considered pathognomonic? Do we discover any thing in *post mortem* examinations that leads us to suppose that any particular organ suffers? We do not. But considering it merely adynamia, we find every thing consistent with that view of it viz: watery effusions into the cavities, to a certain extent, and the whole venous system prodigiously engorged, while the little blood that is left in the capillaries is very dark and thick. We find, too, certain organs perhaps distended with blood and somewhat affected; sometimes one and sometimes another, just as this or that organ had a tendency to disease at the time this condition obtained.

The collapse of Cholera, I presume, resembles that condition which we denominate congestive fever, more than any other, though even in this disease there is not always seen the same prominent symptoms in every case, still there is the same restless; expression of face; pallor of skin, with its shrivelled appearance, and icy coldness and moist, surface. There is the same difficulty of respiration, pulselessness, nausea, vomiting, copious watery dejections, and many other symptoms not necessary to mention, but similar to those named in congestive fever. This collapsed state of Cholera is acknowledged by authors, I believe, to be an adynamic condition, into which the patient is plunged by the overwhelming and depressing nature of the causes that produce the disease. The *post mortem* examinations in Cholera do not reveal one fact that can satisfy the diligent enquirer who wishes to determine what organs, or if any, primarily suffer. There is seen great venous congestion, as before, with sometimes one and another organ affected according to its previous condition, precisely as we found it in congestive fever.

From the foregoing remarks, may we not conclude that congestive fever as it is termed, is not a disease *sui generis*, but an adynamic condition, that may obtain in diseases of miasmatic origin, varying in gravity according to the intensity of the causes in operation, and the idiosyncrasy of the individual attacked.

The treatment adopted by myself has been of the most active kind: quinine and stimulants with camph. opium, and aromatics are administered internally, while sinapisms, the hot air bath, dry frictions, and blisters to produce their full rubefacient effect, are applied to the extremities, spine and epigast. The patients bear quinine in large doses admirably, and I have frequently given 100 grains in a few hours without any other complaint than a little ringing in the ears. After reaction is in a measure effected, calomel in small doses, with opium, is given to correct the secretions, if necessary, while the quinine is continued to prevent a recurrence of the collapse. Perfect rest is enjoined the whole time.

Scarlatina.

DURING my practice in this state, there has been only one epidemic of Scarlatina in my neighborhood, and that was in the winter of 1843

—4. In its extent, it embraced about 80 cases, including children and adults, though the disease was confined principally to small children.

Of this number, only 32 are recorded as regularly treated cases, owing to the mildness of the type. The heads of families acquired general directions, and assumed the treatment themselves, which consisted generally of a laxative, absolute rest, mucilaginous drinks, and abstemious diet. There were exceptions to this uniform mild character, of course, and they are comprised in the cases recorded. For some time previous to its appearance, the weather had been warm, and much rain had fallen, so that the atmosphere was humid and oppressive. In the family in which it made its appearance, there had been no opportunity, for weeks previous to its occurrence, for receiving the contagion from others.

How it was communicated, or whether it arose spontaneously, is a mystery. Its attack was very severe and malignant, for out of 7 cases that occurred in the first family, 2 were of the congestive form, 3 anginose, and 2 simple. The 2 cases of the congestive variety, died one in 24, the other in 50 hours; from the time they were attacked.

In these cases, the eruption appeared only for a short time, and was of a pale livid hue; it then receded, the patients becoming comatose immediately. Succeeding this, followed an alarming diarrhœa and exhaustion; skin cool; pulse from 130 to 150, small and thready. Every effort was made to arrest this condition, but without avail. The hot air bath, frictions, enemata of tr. opii, sinapisms, calomel, and opium all failed.

In the anginose variety, a mild anti-phlogistic treatment was pursued, with the happiest results. A mild laxative, and a soothing diaphoretic, were generally sufficient; sometimes, sponging with cold water was resorted to, producing a charming sedative effect. The throat of the individual was carefully examined, and if greatly inflamed, the tonsils were scarified with a common gum lancet, and then touched with a camel's hair brush, and a solution of nit. silver, 10 grains per ounce, 3 times daily, until the soreness had in a measure disappeared. In some instances, the solution was gradually increased in strength from 22 to 25 grains. In not a solitary instance, where this course was pursued, was there ulceration or chronic engorgement, or enlargement of the tonsils, after the subsidence of the disease.

The relief afforded was so great and sudden, that I have been frequently desired by children to apply it oftener, on account of its gratifying results. The utility of this local treatment was put fairly to the test, in some cases, where no other applications were made than gargles and stimulating liniments externally, as was formerly the practice.

In these latter cases, the individuals not only suffered during the acute stage, but for weeks after; they were annoyed from the engorgement and size of the tonsils.

VI. — *CALOMEL in Cholera*. By D. W. BRICKELL, M. D., *one of the visiting Physicians to the Charity Hospital, New Orleans; July 15th, 1849.*

MR. EDITOR :— Now that the dread scourge, Cholera, has taken its leave of us to seek victims in other portions of our land; now that the hurly-burly and confusion of a terrible epidemic is lulled, and the minds of our professional brethren are somewhat freed from anxiety and enthusiasm, and are, therefore, more inclined to sober reflection, we will venture a few remarks on the application of one of our most popular remedial agents to a disease, for which the whole world are more than anxiously seeking a panacea.

Each passing day more thoroughly confirms us in the belief, that Cholera, like other diseases to which flesh is heir, is, to a reasonable extent, within the control of man, and we are forced to believe that the extraordinary, though very natural, anxiety to discover an infallible remedy for the scourge, is acting in direct opposition to the desired end: enthusiasm has usurped the seat of common sense, and men are not only making no progress towards the long wished for goal, but they are either neglecting or forgetting all useful information hitherto acquired; and, worse than all, quacks and charlatans, having discovered the rich soil, are sowing wide the seed of their infamous imaginations, until the popular mind is so obstructed by the transient, yet destructive growth, that reason is completely shut out from the light, to be restored only by the biting frost of experience, which shall in due time, blacken the vile weeds and return them to mother earth, there to mingle and moulder with the remains of their disreputable authors.

Fully impressed with the conviction, that we do not, as yet, sufficiently well understand the proper virtues and applicability of many of the remedies already in our possession, and placing far more than ordinary confidence in these same agents, we must confess, that we have turned our attention much more closely to the above indicated study, than to the discovery of any "new remedy," any "panacea."

There are two very prominent reasons why we have deemed calomel particularly worthy of our attention, as a remedial agent in Cholera:— first, because of its great value in other and similar diseases; secondly, because we believe there is far too little known of it, to properly develop its worth to mankind. Completely staggered by the conflicting testimony both for and against the use of the remedy, as well as by the wonderful difference of opinion amongst those who even advocates its use, we were, at first, strongly inclined to doubt whether it could be at *all* efficacious; personal observations, however, had previously demonstrated to us the inherent properties of the agent as applied to other diseases, and we determined to test its applicability to Cholera. To do this properly, was no insignificant undertaking, but our connection with the Charity Hospital of this city, afforded us ample field for labor, and we now propose to set forth the result of our young experience; not that we have ever dreamt of revolutionizing the profession on this point, nor of even being the means of changing the practice of a single member, but solely because we believe it to be our duty to

promulgate anything which we may regard as a professional truth. In conducting our experiments with calomel, we have ever preserved a conscientious view to the welfare of our patients, in whatsoever sphere of life they might be; we have endeavored to free our mind from prejudice and enthusiasm, and we have impartially, and to an equal extent, tested each different plan of administration emanating from a respectable source. We have administered the remedy in all stages of the disease, from the first accession of premonitory symptoms to the state of actual collapse, and in all doses, from a half to one hundred grains; and we have, also, administered it alone, and in combination with other agents, and the result of our observations, summed up in as few words as possible, is as follows:

1st. Calomel is one of our most valuable remedies in Epidemic Cholera, and is indispensable to the proper cure of the disease in its true form.

2d. Calomel is *most* beneficial in moderate doses, (say 5 to 10 grs.), combined with opium, or some one of its preparations.

3d. Calomel *does not* possess the power of allaying gastric irritability in Cholera; on the contrary, we are sure of having witnessed effects quite the reverse, and, therefore, believe it *contra*-indicated during the existence of nausea and vomiting.

4th. We have never yet witnessed any phenomena which have in the slightest degree, tended to convince us that calomel, in any dose, and uncombined with other agents, should be awarded the title of a "sedative"; on the contrary, we have repeatedly known it to act as an *irritant*, and more especially in the "large doses" recommended by some practitioners.

5th. We have never seen an instance wherein we could attribute to Calomel, in any dose, the merit of having *checked* the urgent symptoms of a genuine attack of Cholera; as vomiting, purging and cramps.

6th. We believe the beneficial effects of calomel to be quite limited, though all-important, and as follows: *After* the urgent symptoms have been alleviated by other remedies, calomel becomes useful in *re-establishing the secretions of the liver and other organs*.

7th. Calomel is least apt to produce ptyalism, in single doses of 5 to 10 grains—a very great consideration, the opinions of the advocates of drachm and ounce doses to the contrary, notwithstanding.

8th. Calomel can be, and often is, ejected from the stomach, even after having been retained several hours; it is often, also, passed off unchanged in the profuse rice-water evacuations of cholera; and we have witnessed these phenomena only in cases wherein "large doses" were administered; hence arises a very strong argument against the administration of calomel on the "expectant principle."

We believe, then, that calomel should be exhibited in this disease in the following manner, and with a view only to its reestablishment of the suspended secretions: Where vomiting and purging exist, the remedy should be withheld until these symptoms are checked through other means; this end being accomplished, from 5 to 10 grains (more frequently the former,) should be administered, in combination with opium, or some one of its preparations—this dose to be repeated at the end of

15 to 24 hours, should bilious evacuations not be produced. Sometimes, we have found a single grain, in combination with an eighth to a fourth of a grain of morphia, given every hour, until six to eight grains were taken, a very good mode of administration. In cases of "*cholera sicca*," the calomel should be given at the commencement of the attack, or as soon as the patient is seen. Occasionally, it becomes necessary to assist the operation of the calomel, by the exhibition of a little rhubarb, &c., in order to guard against ptyalism.

During the past two months, we have seen a great deal of Cholera amongst the plantation slaves, on the Yazoo and Mississippi rivers; and we availed ourself there, again, of the opportunity to test the calomel practice. Amongst this class of beings, we found the "large doses" invariably injurious, producing dangerous purgation, and excessive ptyalism; and if not actually *killing* the patient, at least, rendering convalescence exceedingly protracted. Five or six grains—administered in either manner above-mentioned—almost invariably produced the desired result, and, in some few instances, even this dose ptyalised; for negroes are, according to our observation, remarkably susceptible to the specific effects of mercury.

We must acknowledge our indisposition to test the virtues of the immense doses of calomel recommended by some practitioners, notwithstanding the vaunted success of Cook, Cornick, *et id omne genus*, each of whom appear to have taken especial pride in believing that they had exhibited *larger* doses of the medicine, than any other man of their day; and it was not until we heard of the reputed success of Dr. J. J. Ker, of this city, that we continued to do so. We have tried the practice in some 39 cases taken in all stages of the disease condensed notes on ten of which we append, (Mr. Butts, *interne* of the Charity Hospital, witnessed the results in these cases, as well as others treated in like manner, and we are under obligations to him for kindly assisting us in our observations.) To two cases, we administered 100 grs. each, in two hours, (2 doses); to one case, 90 grs. in four hours, (3 doses); to one case, 120 grs. in four hours, (4 doses); to one case, 150 grs. in four hours, (4 doses); to one case, 180 grs. in two hours, (3 doses); to one case, 180 grs. in six hours, (4 doses); to two cases, 240 grs. each in 3 hours, (4 doses); to one case, 240 grs. in six hours, (4 doses). Of these ten cases, four were in a collapsed state when the medicine was administered—pulse distinct at the wrist however—and all four died. Of the remaining six, not one was at all in imminent danger when the treatment was commenced, and one died. Of the five who recovered, two were *badly* ptyalised, the first symptoms appearing from 40 to 60 hours after the administration of calomel. In not an instance did the calomel check the vomiting and purging, when these symptoms existed; and in only two cases were bilious evacuations produced, and these not until the lapse of 48 and 72 hours. In two instances, the calomel was freely ejected from the stomach, and this after having been retained, in one instance, 10 or 15 minutes, and in the other, 8 or 10 hours. Those who recovered, convalesced very slowly, and we are confident, that two of these would have died, had not other remedies been brought into requisition immediately on the failure of the

calomel to check the disease. Of the remaining 29 cases, some occurred in private practice, others in the wards of the Hospital, and the results have hardly been as satisfactory as in the above-mentioned two cases. It has never been our lot to see a collapsed case of cholera recover under the use of large doses of calomel, either in our own practice, or in that of our acquaintances; but we can say more for almost every other plan we have seen adopted, though we are by no means prepared to attribute the favorable results altogether to the remedies used. We have given as much as 500 grains, in the course of three hours, and notwithstanding this quantity falls far short of the "tablespoonful doses" of Cook, Cornick, &c., we believe we are safe in saying that *enough* was administered to save the patients, if "large doses" of calomel possessed that power at all.

Thus far, then, (and we do not believe we would be justified in going farther,) we are most fully convinced, that the "large doses" of calomel are contra-indicated, and that the reputed success of this practice is most probably attributable to other remedies, given in combination; and one great argument in favor of this position is, that all the advocates of the practice combine other agents with the calomel; we never yet met with one of these gentlemen, who was willing to trust to calomel alone, either to restore a collapsed case, or to check the urgent symptoms of a recent attack. Most of them use opium freely, and we are forced to believe, that nine-tenths of their success is to be attributed to this agent.

Another mode of administering calomel is, to give 20 to 40 grains immediately on seeing the patient; this dose to be repeated *pro re nata*. We have heard this practice strongly recommended, by members of the profession, in whom we place very great confidence; but in our hands, it has at once offered the same objections as the plan above considered, though in not so great a degree. We have seen these doses too often produce excessive ptialism, and we have known the very same results frequently obtained, in the hands of those who most cordially recommended the practice. And in this connection, we would beg leave to notice, as accessory to our position, the comparatively recent change in the far-famed "Cholera Powder" of a prominent and venerable member of our profession.

During the prevalence of Cholera at and around Natchez, in 1833, Dr. C. used, and universally recommended, a powder, containing 20 grains of calomel, 20 grains of capsicum, and 10 grains of camphor, together with gum-arabic and charcoal: to this prescription, has been attributed his unparalleled success in the treatment of Cholera — a degree of success never before or since approximated; and yet we now find the original prescription most materially altered, by the substitution of 20 grs. of *Hydrargyrum Cum. Creta.*, for the 20 grains of calomel; and we are informed, that the reason given for this change is, that the calomel *salivates too badly*. May we be permitted to ask, whether the calomel did not salivate as badly in 1833, as it does now? and if so, would it not have been for the benefit of mankind, throughout those portions of the globe at all influenced by this plan of treatment, to have made this substitution much earlier? Again, may we be allowed to ask, whether 5

or 6 grs of *calomel*, would not be a superior ingredient in the "cholera powder," to the *hydrargyrum cum creta*, not only for the reason that its efficacy is more to be relied on, but because it is an object of no small importance, to confine our remedies to as small a space as possible? It strikes us, that the *chalk* in this preparation is altogether inadmissible on this account. But before closing, we must mention that we have tried the above-mentioned "cholera powder," in numerous instances, and we are sure that in the original there is too much calomel in its composition; profuse *ptyalism* and *purging*, too, often followed its administration: and we must be candid enough to declare, that its application, so far from being even *general*, is quite as limited as that of any other isolated prescription with which we are acquainted.

Being wholly disinclined to encroach too freely on the pages of your Journal, we have necessarily omitted, altogether, details of many cases, which would have amply served to illustrate the position we have assumed, in relation to the use of calomel in Cholera, and which it would have been our pleasure to have furnished.

Respectfully, &c.

VII.—ON the use of Cold Water in *Scarlatina maligna*. By WM. H. ANDERSON, M. D., of Mobile, Alabama.

IN no part of the United States, or of Europe, have we seen scarlet fever so successfully treated as it is in Holland, and the cause of the success of the Dutch physicians is, in our opinion, the fact that they pursue the most rational mode of treatment. They may have not investigated the disease so philosophically or so learnedly as their neighbors, but they certainly have fallen upon a more reliable treatment, especially in *scarlatina maligna*, than any of the nations that surround them.

Scarlet fever we believe to be caused by a peculiar virus which floats in the atmosphere, and which enters the human system by some unknown means, preferring infant to adult life, acting, as a general rule, with more severity on the robust and phlethoric, than on the weakly and anæmic, giving rise to a most malignant disease in a few, while the attendant symptoms are light and unimportant on the large majority, sometimes easily eradicated from the system by the efforts of nature and the intervention of art; at other times bidding defiance to the strongest constitutions, and unaffected by the most powerful remedial measures. Whether this virus be of animal or of vegetable origin, we leave to the advocates of the *animalecule* and the *cryptogamic* schools to discuss. In fact, they have largely discussed it, and are still as much in the dark as when they commenced. Their investigations, however, are commendable, and, if patiently pursued, will possibly lead to happy results.

This virus having entered the economy, spends its action principally, perhaps exclusively, on the blood, and when it gives rise to malignant disease, the blood is profoundly altered; the salts are diminished; the globules decreased, and the fibrin, at first augmented, is, towards the close, rapidly lessened and materially changed. The alteration of the solids is owing to the circulation of vitiated fluids. As long as the virus remains unchanged in the system, these effects will be produced, and the important question to be asked is, can we expel the poison or lessen its virulence? Experience has proved that in many instances, we cannot expel it—in some, the period of duration is so short that there is no time for remedies to act. In such cases, *scarlatina* resembles charbon and malignant cholera. In other cases, the virus hangs with such tenacity in the system, that the organs of excretion although assisted by their appropriate stimuli, labor in vain to throw it off. Are these forms of the disease to be abandoned as hopeless? With regard to the 1st, viz: that in which the disease rapidly runs its course, we answer, certainly not. There is a remedy simple, yet powerful in its nature, which can often either modify the virulence of the poison, or enable the blood to resist the changes produced by it. This agent is *cold water* poured over the body, or, in other words, what is known in medicine as the *cold douche*. When and where the application of cold water in *scarlatina maligna* originated, we are unable to say. The first authentic account, that the writer has been able to find, is that given by Erimboker, a Dutch physician; who during the middle of the last century, used the cold douche with great success in a large number of cases. From time to time, it has been successively tried in various countries and extravagant eulogiums upon the practice have been written. Many well attested facts and statistical tables have been given, which prove that it is a remedy of great value, and yet, so great is the aversion to its use, merely because it looks like heroic practice, that it is often neglected. In other forms of malignant fever, attended by nervous and cerebral excitement, and accompanied by alteration of the blood, the cold douche is used with the happiest results. Even the French, whose antipathy to any thing cold is only equalled by their ardent admiration of hot ptisanes and smoking poultices—even they will sometimes sacrifice their national antipathy, and employ the cold douche in typhoid and other fevers accompanied by cerebral excitement, and acknowledge too the efficacy of the treatment, and yet we do not remember ever to have seen them use cold water in *scarlatina maligna*, although it was strongly indicated by experience, by analogy, and by circumstances. We are aware, however, that it has occasionally been used both, in Paris and in Lyons, with the most cheering success but the cases have been too few to give currency to the treatment.

In England, many physicians have spoken favorably of the *cold douche* and yet, from some unaccountable cause, the remedy has found its way, into very few of the systematic treatises on practical medicine, or if mentioned at all, is glanced at in a very cursory manner. Some good monographs have been written on the subject, and the practice, though not much lauded by the standard writers, is often used by private practitioners. The article of Dr. Currie, as coming from an eminent

physician, deserves attention. Dr. John Mason Good, in alluding to this article, says: "The great inquietude that characterises this disease has induced many practitioners to try opium, but it rarely affords relief in any form or combination, and generally renders the head worse; acids, whether vegetable or mineral are always grateful to the patient, and seem more than any other internal means to diminish the burning heat of the skin. But our chief dependence for this purpose must be upon Dr. Currie's bold and happy plan of employing *cold water* freely. Sponging will rarely be found sufficient, or rather will rarely be found of equal advantage with affusion; the fluid may, indeed, in this case, be dashed against the patient till the heat is subdued, and the process be repeated as fast as it returns. The refreshment is often instantaneous, and operates like a charm; and seems to show, as I had occasion to observe formerly, not merely a refrigerant, but an exhilarating power, as though the water was decomposed, and a part of its oxygen was swallowed greedily by the thirsty absorbents of the skin, which immediately becomes softer and more moist, as well as cooler."

We have been told by a pupil of the learned Frank, so long a distinguished lecturer in the University of Pavia, that toward the latter part of his life, he was in the habit of using diuretics and bark internally, and cold water externally in the treatment of malignant scarlet fever. We do not find any allusion to this treatment in his celebrated work, "*De morbis hom. cur. epit.*," but this is owing to his having taken up the practice in the latter part of his life. Few practitioners enjoyed the same extensive practice that Frank did, and few, indeed, were gifted with the same philosophical mind, so that we regard his opinions as worthy of the highest consideration. His idea in using diuretics was to expel from the blood the morbid matter by the channel of the kidneys, while he used cold to calm the excitement, to act as a capillary astringent, and to enable the blood to resist the poisonous action of the virus. While we are no advocate of the doctrine of hydro-sudo-pathy, as indiscriminately practiced by its upholders in some parts of Germany, we must, as an impartial observer at two of their establishments, lend our testimony to their successful treatment of scarlet fever.

In the United States, cold affusion has been occasionally used in the disease in question, by respectable practitioners, and particularly by Dr. Bell, of Philadelphia, whose able article on the subject cannot be read with too much attention. The subject seems in this paper to be very philosophically handled, and the boldness with which the arguments are set forth, considering the novelty of the doctrine and the prejudices to be overcome, reflects great credit upon the author. From our conversation with Dr. Folini, of Milan, the pupil of *Frank*, we should infer, that that distinguished practitioner entertained views very analogous to those of Dr. Bell. It is due to Dr. Chapman, of Philadelphia, to say, that he recommends cold affusion in the milder cases of *Scarlatina*, when there are great heat and excitement. Speaking of the severe *congestive stage*, he says: "It has occurred to me, extraordinary as it may seem, that even here, cold applications might possibly be beneficial. Considering the decisive control they exercise over the deleterious agency, productive of the disease, I was inclined to this conclu-

sion, and the more confirmed in it, by the contemplation of some facts, lending to it no insignificant support." Our own private practice, in Scarlet Fever, has been too limited, for us to detail a sufficient number of cases, to give value to our remarks, but we must not neglect to say, that we have several times used the cold douche, when the symptoms were quite alarming, and we had every reason to be pleased with the result. We know very well, that it is rather appalling to a mother, to see her child submitted to a remedy so *shocking* in its appearance, especially with the existing popular, though unphilosophical, notions of repelling eruptions; but we do not think, that a conscientious practitioner should suffer any undue timidity to prevent him from using a useful remedy, although it may appear bold, or even *rash* to those who are ignorant of his profession. The physician should be like the soldier, always cool and deliberate, and ever ready to be heroic when the hope is forlorn.

With regard to the *modus operandi* of the cold douche, we believe that its effects are manifold, but the ultimate action of the large majority of remedies is involved in so much mystery, that we will not, on the present occasion, do more than broach the subject. By what means cold water modifies the poison when it has entered the blood, or how it enables the blood to resist the changes which the virus occasions, is a subject too deep for us to discuss. The nearest approach that we can make to a plausible argument is, that we know that sudden changes of temperature have a marked effect on malaria, both animal and vegetable. Whether the impression of cold, when applied to the skin, has any destructive agency on the virus within the system, we do not pretend to say. But with regard to the physical effects of cold, as an astringent, we can speak with more certainty. We believe that when applied externally, it is not only an astringent to the capillary system of the skin, but also, to the capillary system in general. That every internal viscus shares this astringent effect, we do not doubt. We have often seen the wildest delirium of meningitis calmed by its application. In what way could it have acted, other than by reducing the circulation? We have likewise seen the cold douche put a stop to uterine, pulmonary, and gastric hemorrhages of the most alarming character, and we do not know how it could do this, except by calming the circulation, and corrugating the capillaries that gave rise to the hemorrhage. When the hemorrhage was sthenic, we can account for its influence in another way, but when asthenic and passive, it must have acted on the capillaries themselves. With regard to the pharyngeal swelling that accompanies scarlatina, experience has proved to us, that it has been materially lessened by the cold douche, and we are decidedly of the opinion, that the same astringent and corrugating effect above alluded to, was the cause of the reduction. This latter, however, we believe to be of secondary importance. The calmative agency of the remedy, and its power to relieve the congestion of the brain and lungs, is of far greater value.

In making the *post mortem* examination of children, who have died within the first fifty or sixty hours of scarlatina maligna, we have found great congestion, and sometimes inflammation of the brain and

its membranes. Indeed, in the majority of cases, the brain presented pretty much the appearance that it does in fatal cases of meningitis, and sufficient cause of death was found in the cranial cavity, without referring to the cervical or thoracic regions. In such cases, the hyperæmia of the cerebral organs is observed to come on quite early in the disease, and to be altogether antecedent to the thoracic congestion. There are substantial reasons for believing, that if this cerebral hyperæmia were controlled, the patient would, at any rate, be in a much better condition to withstand the attack. If it were a case of pure meningitis, cold would be used, but because there is swelling about the fauces, and an eruption upon the skin, it is thrown aside as hurtful and contra-indicated. Such reasoning, we think, is fallacious, and not in accordance with the true principles of an enlightened pathology.

With these remarks, we close the article. What we have said, has been set forth in a very cursory manner, and is intended more to call the attention of practitioners to the value of the remedy in question, than to enlighten them upon a subject with which they are doubtless well acquainted already. Having had our own attention turned particularly to the efficacy of the cold douche in scarlatina, we can confidently recommend it, as one of the most powerful and effectual remedies which is known in the treatment of one of the most malignant and distressing maladies which it falls to the lot of the profession to treat.

VIII.—OBSERVATIONS on *Cholera*. By CHARLES DELERY, D. M. P., of New Orleans.

(Continued from page 127 of Vol. VI., No. 1.)

THE capricious nature of these peregrinations to lands so far distant, and at such long intervals, would still call for an explanation. What has given rise to this theory, is the fact, that, in some manufactories, where animal carbon, sulphur, or mercury is used on a large scale, the cholera has not made its appearance. The city of *Idra*, which is in the vicinity of a quicksilver mine, has escaped, as also some persons who had undergone a mercurial treatment.

The advocates of this theory have not failed to attribute their exemption from cholera to the insecticidal properties of the vapors which emanate from these several substances. We answer, that other places, where there are no animal carbon manufactories, no sulphur, nor mercury, have been equally spared by the pestilence. Others have spoken of great changes which they allege to have taken place in the habitual relations of the planets, and the cosmical influences.

Inquirers of a more unambitious temper, careless of the heavens and the planets, have sought in the earth itself the cause of the disease now under consideration. They have supposed telluric currents under the ground. Here we have to mention a fact, worthy of all attention, which

is, that the march of the cholera follows the ordinary declinations of the magnetic needle, and that the place where this declination is at zero, is its birth-place.

Some have supposed a corruption of the ambient air; but the analysis of this gas at the time of the epidemic rebuts the supposition. I will only mention cursorily, the pretended poison lately alleged to have been discovered in the atmosphere, and christened *ozone*. The counter-poison, we are told, is *sulphur*, which is the specific remedy for cholera. I have not read anything authentic on this subject, and do not pretend to give a deliberate opinion on the matter.

Finally: Some persons of a religious temperament, probably with a view to magnify the Deity, have attributed the scourge which lays waste the earth, to the wrath of God. We, who have never sat at the council-board of the Almighty, do not presume to summon him to appear at our bar, and refrain from prying into his secrets!

Predisposing Causes.—Independently of the specific cause, there are predisposing causes, which singularly promote the development of this disease, during an epidemic. Firstly, we will mention all debilitating causes, such as loss of sleep for a continuance, insufficiency of food, bad victuals, and all the depressing passions. Cholera being an affection of an eminently asthenic nature, it is clear, that it must find powerful auxiliaries in all the causes which tend to depress the vital forces. The violence with which it rages among the poor, furnishes a striking proof of the influence of bad food and insalubrious lodgings.

On the other hand, let this point be kept in mind, that each individual, according to his idiosyncrasy, and by reason of his physical education, holds in reserve a certain latent force, which is only displayed on certain occasions: whence it happens, that the cholera, breaking out under the same circumstances in two individuals, is sometimes of a much more aggravated character in the one, than in the other. This fact will also explain how the disease, *cæteris paribus*, assumes a less malignant type among the wealthier, than it does among the poorer classes.

Question of Contagiousness. This question is of capital importance. If the contagious character of cholera were ascertained, it can be easily imagined with what terror people would approach a cholera patient, and with what care, they would avoid his contact. Of course, we here speak neither of medical men, nor of those who make it their business and their duty to attend the sick.

At this stage, we beg leave to make a remark. The language of medicine frequently lacks precision. It contains a certain number of elastic expressions, which sometimes give rise to a mere logomachy; often "doctors disagree" about the form, whilst they are of one mind on the merits.

In strictness, a contagious disease is one that is communicated by contact; that is to say, by the action of two bodies that touch one another. Is Cholera propagated thus? This hypothesis is, I believe, admitted by none. But a greater extension has been given to the word *Cholera*, and it has been applied to affections which are transmitted otherwise than by immediate contact. Thus, small-pox, scarlet fever,

whooping cough, &c., are deemed contagious diseases, although they can be transmitted mediately by the air which propagates their pathogenic principle. Can the Cholera be propagated in the same manner?

In the first place, we have to say, that the scarlet fever, the measles, the small-pox, &c., have, indeed, overrun entire districts, but no instance has been recorded where they have, like the cholera, accomplished gigantic peregrinations, and embraced the whole globe in their sweep. Hence it is, that when the Asiatic Cholera breaks out in a place, there will always be difficulty in separating the fact of its contagiousness, from the character of universality which belongs to it. But let the scarlet fever and the measles break out in a place, and by removing elsewhere, you avoid both diseases; whilst you run great danger of catching them, if you remain exposed to the tainted air. Nothing is easier in that case, than to ascertain the contagion. Is this the case with the Cholera? Certainly not; let it afflict in the same house, two or three persons successively, what will be the criterium, by the help of which, you will know that it has spread by contagion? The whole atmosphere is infected with the pathogenic principle: how then can you take upon you, to assert, that the spreading of the disease from one person to another, is the effect of contagion? But have we not often seen the Cholera depart abruptly from a house, carrying its ravages further; following even a direction contrary to the prevailing winds? It cannot even be asserted in an absolute manner, that the air is the vehicle of the photogenic (!) principle: for, how shall this theory explain, why the Cholera dwells two or three weeks in the same house? Will it be said that the atmosphere that surrounds the house is poisoned? But it would be necessary to take it for granted, that this atmosphere is always the same, which is not the case, since, during the lapse of time, the winds chop round several times during the day, and the epidemic influence, without spreading to the neighborhood, rages in the same dwelling-place, in spite of the variations of the wind, which ought to sweep away and diffuse the morbid principle.

Now we ask, whether among medical men who so often approach cholera patients, and who constantly breathe the air which envelops them, are there many taken with the disease?

Is it by contagion that the Cholera was propagated at New Orleans? But the first cases that succeeded that of Frank, (who came here on board the *Swanton*, and entered the Hospital, Dec. 12, 1848,) broke out in districts far removed from each other, among persons who had no communication, either with the passengers of the *Swanton*, or with Frank himself.

The disease followed the same course in New York. The first cases that occurred in that city, originated in streets far removed from one another, as Dr. Bodinier has shown in an interesting communication, which appeared some months ago in the *Courier des Etats-Unis*.

Such is not the case with scarlet fever, small-pox, &c., they obey invariably the same law; spread from individual to individual, from house to house, from district to district, and so on; but they never exhibit any of the vagaries and eccentricities of the cholera. On the contrary, how often does it happen, that the cholera attacks a single

person in a house, where there are many inmates, all having communication with the patient? We, therefore strongly incline to the opinion, that this dreadful affection does not spread from individual to individual, as diseases really contagious do; and that one can, without any danger, go near a cholera patient, and give him the most assiduous care, with impunity — or at any rate, without increasing the unfavorable chances against one's-self.

Prophylactic Treatment. Experience proves, unfortunately, that quarantines and lazaretos do not keep off cholera. The trial has been made on a large scale without any success. Berlin, for instance, in 1831, was inclosed to no purpose, in a triple sanitary cordon. In Eastern Prussia, cordons and lazaretos had been established everywhere, streets, houses, and hospitals were cut off from all communication; yet, in spite of all, the mortality was greater than in the neighboring provinces of Russia.

At Neidenburg, the severest measures were taken, from the 8th to the 13th August, 1831, yet, 150 patients died out of 220. The order of non-communication was superseded: from that time to the 15th of September, the deaths were reduced to 57 out of 134 cases. What took place at Dantzic, especially, shows the uselessness, if not the danger, of this practice. No precaution had been neglected; there was a cordon outside the limits, a cordon on the port, lazaretos, sequestration of the infected houses — with all this, there were 1010 deaths out of 1387 cases. Lately; again, New York, whose citizens thought themselves protected by a strict enforcement of their quarantine laws, has just been visited by the disease.

However, if the invasion of the pestilence cannot be prevented, the facts show peremptorily that its ravages can, at least, be diminished by appropriate hygienic measures.

I have now before me a report submitted to the Academy of Medicine, of Belgium, by the commission appointed to examine the question of the prophylactics against Asiatic Cholera Morbus. Its conclusions are so interesting, that I cannot resist the temptation of transcribing them at full length.

“It appears 1stly: That such patients (in the Female Indigent and Lunatic Asylum,) as had the disease in the worst type, slept in the most crowded dormitories, especially in beds standing in the worst aired places, and in the corners of the dormitories.

“2dly: That whenever the air was removed, either in a particular part of the establishment, or as a general measure, no person, the next day, was attacked with cholera in its worst form.

“3dly: That this experiment, renewed in four parts of the establishment, at different periods of the epidemic, had everywhere the same results.

“4thly: That the epidemic broke out on the same day in the indigent department, and in the lunatic department.

“5thly: That so long as there was no ventilation, the mortality was about equal in both departments, in proportion to numbers.

“6thly: That from the time when the air was renewed, during the night, in the indigent department, containing 3,289 females, the epidemic appeared to be arrested.

"7thly : That, on the contrary, it increased wonderfully among the lunatics, in which department the same precautions could not be taken.

"8thly : That the epidemic re-appeared in the indigent department, when the nightly ventilation was less punctually attended to, but that it was always less malignant here than in the lunatic department.

"9thly : That the epidemic reached the acme of its mortality that very day ; but that on the side that had been ventilated, though imperfectly, there were only 7 deaths out of 3,289 cases, whereas, among the lunatics, who had not had the benefit of ventilation, there were 16 deaths out of 1200 cases.

"10thly : That the epidemic decreased the same day on both sides, but with proportional differences.

"11thly : That the mortality was very great in the cells where the lunatics were isolated, but whose lodging was small.

"12thly : That alcoves, and confined lodgings, where the air was not renewed, were precisely those where the most malignant type was observed ; and that there was a nearly constant relation between the gravity of the symptoms and the smallness of the lodgings.

It cannot therefore be doubted, that one of the most useful measures to be adopted, if this pestilence should visit Belgium again, would be, to disperse or disseminate that part of the population which is huddled together in unhealthy lodgings, by procuring for them, in their need, convenient habitations.

As to individual prophylactics, it lies in a nut-shell : avoid every kind of excess, and follow your habitual mode of living. Each one is acquainted with his own temperament, and knows, better than the physician, what suits his stomach. To change one's mode of living at the approach of the cholera, as Dr. Rouanet remarks very judiciously in an excellent article, published a few months ago in the *Louisiana Courier*, is to throw sure and tried arms far away, at the fighting hour. I have known persons that have suffered severely, from an abrupt change in their mode of living.

I have just read in the newspapers, that the authorities of St. Louis have prohibited, by an ordinance, the sale of all sorts of vegetables. This unwise measure, which originated, no doubt, in a praiseworthy feeling, will have fatal effects for a great number of persons, and will be beneficial to none. This compelling all stomachs, on the same day, to the exclusive use of meat, is making light of all hygienic laws, and of the legitimate exigences of the animal economy. The different tissues which constitute our organs cannot derive their necessary nutriment from meat alone, any more than they can from vegetables without meat. Besides, there are delicate stomachs, which cannot brook this regimen, because they digest meat with great difficulty. Many inhabitants of St. Louis may, therefore, expect to feel, after meals, a heaviness at the stomach, at a later period, an obstinate costiveness, accompanied with gases, which will cause them much anxiety, and, subsequently, pains in the head. Sanguine persons, especially, will have much to suffer from a diet so uncongenial, and which, far from diminishing the mortality at St. Louis, will probably increase it, since,

without keeping off the cholera, it will breed other diseases, which will add new victims to those of the cholera.

At the same time, there is no denying the salutary influence of proper hygienic measures. Numerous facts support this assertion.

Boarding-schools and establishments of the same kind, where everything goes according to rule; where the apartments are sufficiently ventilated; where the food is wholesome and substantial, have either escaped the visitation, or, at any rate, have had but few victims to deplore.

In the Second Municipality of New Orleans, where the cholera raged as much as in the other parts of the city, there is a Female Orphan Asylum, containing two hundred little girls, from a very tender age to ten or twelve years. Having heard that this establishment had been spared by the epidemic, which had been very severe in the neighborhood, I repaired thither, to gather reliable information from the Superior herself, and at the same time, to visit the institution. I was told by the Superior, that there occurred a single case of cholera, which was speedily cured. No change had been made in the diet of the children; only, as a prophylactic, they were made to take in the morning, a little common salt in water. But there is one thing to be said, to the glory of the self-devoting ladies who govern the Asylum, no royal mansion could vie with it in cleanliness. The dormitories, besides ventilators placed at regular distances, are provided with numerous openings in different places, which allow a renewal of the air throughout the day. At night, the window-frames are let down, in such a manner, that an opening several inches wide is left at the upper part, giving a free inlet to the outer air. As much may be said of the infirmary, the refectory and the recitation rooms. The bed-linen is often changed, and the little orphans are exquisitely clean. It is a truly edifying sight, to witness so much comfort provided by warm-hearted piety and philanthropy, for these poor little creatures, otherwise destitute of all support in the world.

Now for the counter-proof. Whilst the cholera was raging in Paris, in 1832, two companies of firemen, amounting to 300 men, occupied the barracks in the Rue du Vieux Colombier, in rooms sufficiently spacious, but the windows of which, being all on one side, precluded a thorough draught of air, and thus made its circulation and renewal impossible. The pestilence spread rapidly among these men thus huddled together. In the very first days of April, 1832, seventeen were taken ill, and eleven were carried off. Measures were taken forthwith, to separate these two companies, so unfortunately brought together; from that moment, the malignity of the distemper was checked in the barracks of the Rue du Vieux Colombier.

The fact of the immunity of the Orphan Asylum, from cholera, coupled with the fact just related, proves most satisfactorily, that there is no inconvenience in the inmates of a house being crowded, provided the rooms be sufficiently ventilated, and provided their occupants lead a regular and temperate life.

Organic alterations.—All physicians who have observed cholera patients have noticed the return of heat to the surface of the body after death. Some have sought to account for this singular phenomenon, and

have inquired into the source of this caloric thus held in reserve, and which, when life is extinct, warms the body, which was icy cold, whilst the heart still retained all its action. Dr. Rouanet, in the article alluded to above, explains this peculiarity by the cessation of perspiration after death, and by consequence of the evaporation which chilled the patient. A case of cholera which came under my observation seems to support this view. The patient was a little girl, eight years old, who preserved her natural heat till death, and who did not perspire at all.

All those who have been frequently engaged in autopsy, agree in declaring that occasionally, in cases where death was very speedy, no traces of organic alterations can be found. In the majority of cases, however, there are anatomical lesions, of which the abdominal viscera are nearly exclusively the seat. The mucous membrane of the stomach showed, here and there, some red spots, particularly towards the grand cul-de-sac, it was softened and could be easily peeled off with the nail. The intestinal tube contained, in its whole length, a white and pulpy matter, like the flaky substance which swims on the top of a cholera patient's stools.

This same matter has been noticed in the nostrils and the bronchia it has even been found in the pelvis, and in the bladder. Some medical men declare they have sometimes seen a sward quite similar to this white matter on the surface of the clot of blood after phlebotomization. Dr. Rochoux has seen it on the conjunctivæ; Dr. Velpeau, on the surface of the arachnoides. Whence it results that this white matter is not exclusively secreted by the intestinal mucous membrane. There is also on the surface of the serous membranes a pitchy matter, which possesses the properties of bird-lime. It is found especially in the abdomen on the surface of the peritoneum. It is met with, also, in the pleuræ; not so often, by far, in the pericardium and the arachnoides.

The blood also presents new features; it is evidently blacker and more lustrous than usual. It is thicker, contains less of the serous portion, and clots in the right cavities and in the large veins. Finally, it reddens less readily when exposed to the air.

The lungs show nothing particular, unless it be that they appear sometimes to have lost their elasticity. The cerebro-spinal system exhibits nothing remarkable; the same may be said of the liver, the spleen, &c. The bladder is generally empty and contracted.

The ganglions of the great sympathetic nerve, after a careful examination, have always appeared free from pathological alterations.

Chemical alterations of the blood.—Chemical analysis has shown the following facts:

1st. *That the blood of cholera patients contains less water than ordinary blood.*—Mr. O'Shaugnessy found that, instead of 906 parts of water out of 1000 of serum, the blood of cholera patients only gave 854 parts. Mr. Thompson, on the other hand, ascertained that, out of 100 parts, the blood of cholera patients contains 33.2 of serum for 66.8 of crassamentum, whilst in ordinary blood there are only, for the same quantity of serum, 27.8 of crassamentum.

2d. *That the blood of cholera patients contains much less saline substances than other blood.*

3d. *That the quantity of albumen is manifestly increased.*

Nature of Cholera.—The same uncertainty which prevails as to the cause of this distemper meets us in our inquiries into its nature. Some hold it to be a neurosis, others a paralysis of the skin; according to a third opinion, it is an asphyxia; and, according to a fourth, a gastro-enteritis. We shall not enter on a critical analysis of these different theories; it would lead it too far. Leaving aside the notions of paralysis and asphyxia, we will give our attention to the opinion of those only who hold cholera to be either a neurosis, or a gastro-enteritis. To the former, we object that the cholera, though it puts on some of the features of neurosis, displays, also, in a nearly invariable manner, features which do not belong to it; such is the fever called the reaction fever; such also are the pathological alterations observed in the digestive organs. To the others, we reply, that notwithstanding certain phenomena, either during life, or after death, which belong to inflammation, cholera can nevertheless not be considered as a genuine phlegmasia, since it lacks, at its inception, two of the principal features of phlegmasia—fever and the heightening of the temperature of the body.

Now, if we attentively analyse the complex symptoms of the cholera; if we observe, on the one hand, the spasms which accompany it, the aphony which is peculiar to it, the state of apyrexia and even of astheny which characterizes it at its inception, as well as the sensorial perturbations which appear whilst it lasts; if, in the second place, we consider the sharp pains which are felt in the abdomen, particularly at the epigastrium, the intense fever which sometimes succeeds the first phenomena; and, finally, the nearly invariable softening of the intestinal mucous membrane, sound logic will perhaps lead us to the conclusion, that there are in this affection, two elements, the one nervous, the other inflammatory.

Let us first observe, that the diseases comprised under the head of neuroses, (otherwise called nervous diseases,) are generally characterized by an extremely slow progress, and by the phenomena of remittency—such as catalepsy, hysterics, epilepsy, whooping-cough, asthma, &c. Tetanus and hydrophobia are the only nervous diseases, so far as I know, that bring on death speedily; besides, they leave after them, no traces of organic alteration. Moreover, the former of these two affections is ever attended with fever, if not at its inception, at least towards its close; and the second, during the whole course. The cholera has nothing similar; it has neither the intermittency, nor the slow progress of epilepsy, nor the fever of hydrophobia; moreover, its progress is extremely rapid. The muscular spasms, the sensorial perturbations, aphony and apyrexia, are the only features which it has in common with the neuroses.

I speak neither of vomit, nor of diarrhœa, which do not exclusively belong to the neuroses, especially in cholera, where we find, in the great majority of cases, pathological alterations, which really cannot be attributed to a nervous affection, and which remain inexplicable, if they are not considered as the product of inflammation.

I shall perhaps be told, that persons who have died of epilepsy are found to have pathological lesions in the brain. Granted : but that is when the disease has lasted a long time. Besides, who can say, with confidence, that these alterations are rather the effect than the cause of the disease ? Let us pass to another order of neuroses. Among hypochondriacs, likewise, pathological alterations are frequently found, either in the liver, or in the spleen, or in the stomach, yet see how slowly the patient descends into his grave. As much may be said of mania, lunacy and idiocy.

There are, therefore, in cholera, symptoms which belong to neuroses, but there are others which are foreign to it ; neither would it be sound doctrine, to attribute to it the organic alterations, which are met with nearly invariably in the gastric mucous membrane, and the intestinal mucous membrane. To what must these alterations be attributed, if not to inflammation ? Here I expect an objection. You have no fever, but a lowered temperature and a slackened pulse. This I admit : but if, in your view, fever is the condition *sine qua non* of inflammation, cease to consider, as such, certain dysenteries, where there is apyrexia and a slackened pulse ; find out another name for that enteritis, which begins with fever, and is thus perpetuated in the chronic state ; finally, ask the heart, that thermometer of inflammation, why it gives no tokens of such a state, in those chronic pleurisies, which are free from febrile phenomena.

Prognostics. It cannot be denied, that the prognostics of cholera are generally very grave, and so much the more so when the patient has delayed calling in the physician. But suppose a population entirely enlightened respecting the first symptoms of cholera, as well as the first steps to be taken against it, a population avoiding, during the duration of the epidemic, all kinds of excesses, and observing the most approved laws of hygiene, there is no doubt that the ravages of the pestilence would be quite inconsiderable. Schools and academies, and similar institutions, furnish proofs of my assertion. Let statistics be drawn up of the victims of the cholera among the affluent class, and it will be seen that few were carried off in proportion to their numbers. Then, again, divide that affluent class into groups, and you will infallibly come to the conclusion, that the groups which the cholera treated most leniently, were those consisting of persons who had committed the fewest excesses, who had followed the most regular life, and who had met the disease on the first appearance of the signs that betoken it.

The disease will be so much the more severe, as it will break out with more symptoms at once ; the converse is likewise true. Vomiting is also a more grievous symptom than diarrhœa ; if the vomitings are very frequent, it is a bad sign. The radical disfigurement of the facies forebodes a melancholy termination ; and if the physician perceives it at his first visit, he must conclude that the disease is not at its inception, and that the patient has neglected the first symptoms. The age of the person, his previous debility, his moral state, even his rank in society, ought to be taken into consideration for the prognostics. The sudden suspension of the stools and vomits is indicative of a speedy dissolution.

Treatment. There are two modes of treatment to be considered, the one applicable to the disease at its inception, the other to confirmed cholera. The former is stable and efficacious, the second variable and uncertain. A fact worthy of remark is, that opium is the basis of the different prescriptions employed against cholera; everything else may vary, but opium is never wanting: but it must be acknowledged, it is only efficacious in the first stage of the disease. When the disease has gone beyond a certain degree; when the physician is not called till the stomach, being paralysed, is no longer able to absorb the medicaments intrusted to it—art is powerless, and the medical man has nothing to do, but to watch with sorrow the rapid progress of death.

During the last epidemic, and here I appeal to general experience, there are few persons who did not experience more or less disorder in the digestive organs; for instance, a feeling of fullness at the stomach, gases pervading and distending the bowels, rumblings heard at a distance, a general lassitude, an unaccustomed weakness, the whole followed sometimes by a diarrhœa—brought on by no excess; already the face itself bears the stamp of this secret distemper, so benign in appearance at its inception; so terrible in reality, when it is allowed to grow strong.

Question, at the last hour, all those persons who have deferred too long calling in medical aid; they have all passed through those sensations before reaching the desperate state in which they are. I do not pretend, that all those who experience those forerunners must infallibly go on to confirmed cholera; there are some that escape, but not without following a severe regimen. And really, at that period, regimen is the capital curative; in addition to which, let there be a convenient course of medicine, and you will rescue a number of victims from an enemy so much the more dangerous, as its first attacks are but feints.

I know there are many unprofessional persons, who do not admit these truths as established, and who, listening rather to their own fruitless experience, than to that of medical men, maintain that, commonly, the cholera strikes the patient down like lightning. To support their assertion, they cite ill-observed cases; to question a patient properly is not so easy a task; in general, (such is the human mind,) the patient conceals the truth with as much care as a culprit at the bar. Now, the great fault of unprofessional persons, is the simple fact of their having a medical opinion. This is a fault which is followed sometimes by the most fatal results for very often pride wed us to our own opinion, and, for lack of counsel, we close against truth the only avenue which lays open.

The characteristic of the man, who observes and studies, is to have in his store-house of knowledge, an inlet for new truths, and an exit for the errors and prejudices which are ever gliding in, ushered in by fallibility, and often by pride.

Thus, so soon as the forerunners described above, show themselves, the patient must submit to an absolute regimen; all food, however light, must be discarded. As a remedy, I think I can recommend the drops of Dr. Thielman, of St. Petersburg.

I have always employed them, with the greatest success at this period

of the disease. Many persons, by my advice and that of other physicians, have derived much relief from the use of them. These drops consist of the following mixture :

℞ — Ipecacuanha Wine,	} of each 2 drachms.
Essence of Mint peppered.	
Sydenham Laudanum,	} of each one half ounce.
Etherated Valerian.	

Before it is used, the vial must be well shaken up ; otherwise, the volatile substances rise to the surface, and the laudanum remains at the bottom, a circumstance which makes it difficult to give this medication in drops.

The dose, for a grown up person, is from half a tea-spoonful to a tea-spoonful, according to the intensity of the symptoms, to be repeated two or three times a day, if need be. I give it, generally, in a small quantity of sugared water, about two table-spoonfuls. For young children I prefer paregoric ; it is administered more easily by drops, and does not contain those diffusible substances which act rapidly on the brain.

Thielman's drops I have found to be efficacious at the inception of the disease, especially when the diarrhœa is as yet accompanied with no vomitings, or only a few. When the vomitings are frequent, the stomach appeared to me to keep the medicines with some reluctance ; perhaps because the remedy becomes incompatible with the state of gastric irritation, which is ever most felt in an advanced stage of the disease. In these cases, I have thought it most expedient to use opium pills, in a small volume, one-quarter of a grain every hour, taking care to watch the state of the brain, and to put a greater interval between the doses, according to the indications. In cases where there exist, simultaneously, sharp pains in the epigastric region, I have obtained good results from the application of leeches to the suffering part. Besides alleviating the pain, they also diminished, in a singular manner, the frequency of the vomitings. If there be a tendency to refrigeration, the patient must be immediately surrounded with bottles of hot water ; recourse will also be had to dry frictions kept up a long time. Frictions, by means of volatile substances, have the inconvenience of cooling the surface of the body still more by their volatilization. Unless there be counter indications, the air of the sick chamber must be renewed, and none but the necessary persons retained. In the case of a female patient, where the vomitings had withstood several means generally efficacious, I have employed, with complete success, pills composed of one grain of sub-nitrate of bismuth and a quarter of a grain of extract of belladonna, taken every quarter of an hour.

Should the patient feel a repugnance for Dr. Thielman's drops, and a difficulty in keeping them on the stomach, the following mixture may be used with success :

℞ — Gum Water,	℥i.
Extr. of Opium,	grs. ii.
Sub-Acetate of Lead,	grs. iv.
Cachon Syrup,	℥i.

A table-spoonful every hour for a grown up person, a teaspoonful every two hours for children, taking care, in both cases, to give the doses

again? I lately saw a female child, three years old, taken suddenly with white diarrhœa, similar to the white stools in cholera. She had eight voidings through the day; her countenance was emaciated, she was very weak, but did not vomit. She was ordered to abstain absolutely from all food, and she was made to take, from hour to hour, a tea-spoonful of the gum potion, the prescription of which I gave above. The diarrhœa was arrested, and the child recovered. Care was, of course, taken to lengthen the intervals of the doses at the third or fourth spoonful, so as gradually to interrupt the taking of the potion. This case had all the appearance of incipient cholera. Now, this same child had experienced, in the worst time of the epidemic, a most violent attack of cholera. At any rate, this is the only case of the kind which ever came under my observation. The question cannot be resolved in a final manner, but by appealing to all the medical men who have observed cholera epidemics. However, if a relapse is possible, it must be confessed that it is of rare occurrence, since no one has taken the trouble to record such cases.

Conclusion.—From the experience of nearly all, not to say all, the medical men who have observed the late epidemic, there flow two capital truths, which ought to be brought home to the popular mind, and which, if our fellow-citizens were inclined to be taught, would diminish, in an astonishing degree, the number of deaths, if the scourge should ever visit us again.

The first is, that the disease announces its coming by light symptoms, and is easily mastered when contended with at its inception.

The second is, that its intensity can always be diminished by appropriate hygienic measures.

These truths easily find their way among the affluent classes; but with difficulty among the poorer classes, who have no time or opportunity to read the newspapers.

However, the poorer classes might, in another way, be instructed in this useful knowledge. At the beginning of an epidemic, a committee of medical men might draw up a short paper, describing the forerunners of cholera, and pointing out the proper course to meet that disease, so that the time generally lost in waiting for the doctor might be usefully employed. This paper should be translated into the different languages spoken by the indigent branches of our population, and posted up on the walls in the poorer districts. Apothecaries, appointed for that purpose, would keep in readiness the medicines adopted, taking care to paste on each phial a label, with the dose, &c.

Here it will be objected, that many persons, actuated by fear, will go in all haste to fetch a remedy, which, to say the least, will be useless. What harm can there be in taking a few of Dr. Thielman's drops, for instance, when they can, in no case, be injurious, and do often save a man's life? Moreover, I know full well that there will be no lack of objections; of all prompters, selfishness is the most persuasive, if not the most loquacious.

IX.—REPORT of the Cases treated in the Hospital of the Alabama Penitentiary, from February, 1848, to February, 1849. By Y. W. MASON, M. D., Physician to the Penitentiary.

ADMITTED FOR	CURED.	BELIEVED.	DEAD.	TOTAL.	CASES TREATED IN THE YARD.	
Bronchitis, Chr. - -		1		1	Chronic Diarrhœa - - -	25
Constipation - - -	1	1		2	Acute Dysentery - - -	14
Cephalalgia - - -	1			1	Chronic Rheumatism - -	3
Colic, Flatulent - -	3			3	Influenza - - - - -	15
Cholera Morbus - -	1			1	Chronic Bronchitis - - -	1
Diarrhœa, Chr. - - -	2	2	2	6	Impetigo - - - - -	2
Do. Acute - - -	1			1	Spinal Irritation - - -	2
Dysentery, Acute - -	8			8	Inflammation of the Bursæ-	
Fever, Remit. - - -	3		1	4	Mucosæ of the Knee - -	1
Do. Incipt.Sympts. -	5			5	Imperfect Measles - - -	18
Do. Intermittent - -	14			14	Enlargemt. of the Ingl. Glands	1
Do. Catarrhal - - -	2			2	Cephalalgia - - - - -	6
Fracture of 2 Metatarsal Bones - -	1			1	Gonorrhœa - - - - -	7
Gravel - - - - -		1		1	Chronic Larysigitis - - -	2
GastroEnteritisAcute -	1			1	Anaemia - - - - -	2
Do. Chronic - - -		1		1	Lumbago - - - - -	1
Gluteal Abscess - - -	1			1	Palpitation - - - - -	1
Hemicrania - - - -	2	1		3	Pseudo Syphilis - - - -	1
Hepatitis, Acute - -	1			1	Dyspepsia - - - - -	3
Hypochondriasis - -		1		1	Neuralgia - - - - -	3
Impetigo, Chr. - - -		1		1	Hemorrhoides - - - - -	2
Icterus - - - - -	2			2	Incip. Sympts. of Fever -	7
Influenza - - - - -	2			2	Intermittent Fever - - -	12
Measles, Impt. - - -	4			4	Urticaria - - - - -	1
Neuralgia - - - - -		1		1	Pleuralgia - - - - -	1
Onanism - - - - -		1		1	Secondary Syphilis - - -	1
Orchitis - - - - -	1			1	Constipation - - - - -	2
Phthisis - - - - -		1		1	Acute Diarrhœa - - - -	3
Rheumatism, Acute -	1			1	Chronic Hepatitis - - -	1
Spinal Irritation - -	1			1	Torticollis - - - - -	1
Stomatitis - - - -	1			1	Abcess of the Jaw - - -	1
	59	12	3	74	Chronic Dysentery - - -	2
					Pyrosis - - - - -	1
					Chronic Ulcer of the Leg -	1
					Ophthalmia - - - - -	2
					Tertiary Syphilis - - -	1
					Icterus - - - - -	2
					Bone Felon - - - - -	2
					Bilious Diarrhœa - - -	2
					TOTAL, - - - - -	143

By a reference to the foregoing table, it will be seen that diarrhœa, and especially the chronic form, may be termed the scourge of the convicts of the penitentiary. The great difficulty with which it was found to yield to remedial agents may be accounted for, to some degree, by the impracticability of carrying out any strict dietetical regimen; and the necessity of confinement in a close and often damp atmosphere. We have found this disease, however, to yield, in most cases, to a proper use

of opiates, astringents and mercurials, as the indications demanded. In the autopsical examinations of two cases, which proved fatal, we found inflammatory marks throughout the small intestines, and in many cases ulceration, advanced almost to perforation. In both cases, there was considerable effusion in the peritoneal cavity.

Dysentery is another very common disease that we have to combat, but it is far less obstinate, and the usual modes of treatment found efficacious. During the spring, we had, what is termed by some authors, imperfect measles; the cases were very mild, and scarcely any were admitted into the hospital. The premonitory symptoms of intermittent and remittent fevers were most happily treated, with 10 gr. doses of quinine and a mild laxative: the dose of quinine was rarely repeated. The fevers, during the last of summer were characterized by symptoms of congestion of the brain and stomach.

During the summer and fall, we had a few cases of icterus, presenting however, no peculiarities; the treatment was altogether expectant. The diseases found here, and more especially fevers, are inclined to assume an adynamic or typhus form, and on this account depletion and active treatment of any kind are by no means so well borne here, as in patients who are not subject to the same influences.

The walls of the cells and cell rooms are almost always damp during the warm seasons. We have no local causes, excepting these cells, in which the convicts are confined through the night and Sundays. Never have we complaints on Monday mornings. The locality of the penitentiary is near the river, in a flat extending out from it; and there are several ravines near, into which the water backs during freshets. Have we not abundant cause for our endemic fevers? We have now closed our short and imperfect report, with the above general observations.

X.—*Two cases of Meningitis by Metastasis. Read before the Alabama State Medical Association, at its session in Wetumpka, on the 7th and 8th March, 1849. By F. E. GORDON, M. D., of Marion, Perry County, Ala.*

[Published by order of the Association.]

Case 1st. Miss P——, a young lady about seventeen years of age, of quick mind and excitable temperament, was attacked with Mumps early in May, 1847. I saw her, for the first time, on the 10th of that month, and found her suffering with great distress in swallowing, severe pain in the head, and much nervous agitation. Under treatment, she recovered in a week, and left for her home, distant some ten miles from

town. The next I heard of her was, I think, in the following July. She had had her palate clipped, for she imagined she had, or really continued to have, much difficulty in swallowing and talking. I saw her soon afterwards in town, where she called on me, and requested me to examine her palate, and tell her, candidly, its condition. She now fancied that it was so short as to injure her. There was evidently a morbid state of feeling at this time, and a manner peculiar to hysteria. The following fall she was brought to town, and treated for amenorrhœa, attended with great mental excitement, in consequence, it was thought, of a wetting she had received after the attack of Mumps. The usual medicines were prescribed, but it was soon found necessary to abandon her case as intractable, she having perseveringly refused to take medicine. During the winter, she was confined to her father's residence in the country, where she soon began to manifest the usual signs of mania, and gradually grew worse. Early in February, 1848, she was again brought to town, with the view of subjecting her to medical treatment, before a final removal to the asylum at Nashville, Tenn. I was consulted on the subject, and signified my willingness to accept the case, provided I should be allowed to confine her strictly away from her relatives and friends for one month, and have a competent nurse to attend on her. This was assented to, and, accordingly, I took the case, having fitted up, securely, a room for her accommodation. She was immediately put under active treatment; was bled once from the arm; cupped on the mastoid process; was daily subjected to the shower bath, and purged freely with croton oil. I first used hellebore as a purgative, but found it inert. As she did not improve as fast as I could wish under this plan, at the expiration of a fortnight, I had her head shaved, and a seton inserted in the nape of her neck. She now bade fair to recover, but such great difficulty was experienced in keeping a suitable nurse, and in separating the family from the patient, that, as my time of one month had expired, I recommended her to be taken at once to Nashville, before she should lose the advantages she had already gained. The journey, by private carriage, occupied some time, so that before she reached that city she had become entirely rational, and the attending physician of the asylum thought that she might return home, with safety, at once. Her friends brought her home restored, and she has been able ever since to keep a country school, with credit to herself.

Case 2. Elijah, a negro man, thirty years old, of nervous temperament, employed as a waiter at a tavern, was attacked with Mumps, in September, 1847. He was supposed, by his physician, to be convalescing, as the swelling of the glands was fast subsiding. For several days afterwards he escaped observation, being occupied with his duties as usual, but very soon began to grow noisy and eccentric. I saw him on the 20th, in consultation, and found him laboring under the wildest excitement, with bright restless eyes, hollowing and singing camp-meeting airs. His pulse was very frequent, and small; his every motion tremulous, and his face and limbs bathed with cold sweat. As every means had been exhausted, I advised his scalp to be shaven and a blister applied forthwith. By nine o'clock at night, it had drawn well, and he seemed much quieted; but the other symptoms were fast becoming graver, so that he sunk by the next morning.

I would submit these cases to the Society, as being illustrations of *Meningitis by Metastasis*, the one chronic, and the other acute. I am not aware that a tendency to metastasis of this character, is laid down in any of the methodical treatises on Mumps; but it is no more wonderful than that gout should leave the toe for the stomach, or rheumatism the knee for the heart.

XI.—*A Case of Hydrocephalus, with Hypertrophy of the walls of the Cranium.* By T. W. MASON, M. D., of Wetumpka, Ala.

BLACK MALE.—Æt 12 years; Autopsy ten hours after death. The following table shows the thickness of the bones that were divided in the examination:

Frontal,	$1\frac{1}{8}$ inches.
Occipital,	$1\frac{3}{8}$ “
Parietal,	1 “
Temporal,	$\frac{1}{2}$ “

The cellular structure forming the middle table of the cranial wall seemed to be filled with coagulated blood; the internal table was entirely destroyed in some places; the impressions made by the blood vessels were much larger than usual.

Meninges of the brain were so closely adhered, that they could not be separated. Cerebrum of natural consistence, preternaturally white; indeed, it was entirely exsanguineous. The amount of effused serum was not as great as we expected to find, although it was considerable. The ventricles were much enlarged by the effusion. Cerebellum was found preternaturally soft, and also of a much lighter color than usual.

REMARKS.

WE have been unable to obtain any thing like a satisfactory history of the case; we can therefore only furnish the following imperfect items: The boy's head commenced enlarging, when he was four years old; he then was attacked with, what his mother termed, “fainty fits” and his mind was seriously affected. He, however, gradually recovered his lost faculties, and retained them till his death.

When we saw the case, which was a few weeks before death, it presented the following symptoms: eyes much projected and pupils dilated; diarrhœa and occasional vomiting; he complained almost constantly of a dull aching about the head, but no acute pain; face, hands, and feet would frequently swell toward evening and go down by morning; pulse usually about 120, weak and wiry; skin warm and dry; the “fainty fits” continued to increase, in frequency and severity, as the fatal issue approached.

WETUMPKA, Feb. 12, 1849.

XII.—ANALYSIS OF COD-LIVER OIL.

PHILADELPHIA, July 3d, 1849.

Dr. A. Hester :

DEAR SIR:—We have enclosed to you analyses of three different kinds of Cod-liver oil, which you are at liberty to publish in the *New Orleans Medical and Surgical Journal*.

As it is of the utmost importance that the Cod-liver oil should be chemically pure and free from admixture of vegetable or animal oil to meet the indications for which it is prescribed by physicians, we have obtained careful analyses of the oil, and examined a number of specimens, and have arrived at the conclusion, that the light brown oil is that which contains the largest proportion of the active constituents. It is thought, by many physicians, that the white cod-liver oil is the most efficient; but, upon submitting our analyses and samples to a few scientific medical gentlemen of this city, they have pronounced the light brown oil to be more efficient than any other in use.

To prove the correctness of the foregoing statement, and to afford to every member of the medical profession an opportunity of judging for himself, we annex the analyses, to which reference is made above.

Yours, truly,

JOHN C. BAKER & Co., Druggists,
No. 100 North Third Street, Philadelphia.

COMPARATIVE ANALYSIS OF THE THREE DIFFERENT KINDS OF
COD-LIVER OIL.

	BROWN.	LIGHT BROWN.	LIGHT,
Oleaic acid, with Godwin, - - -	69.78500	71.75700	74.03300
Margaric acid, - - - - -	16.44500	15.42100	11.75700
Glycerin, - - - - -	9.71100	9.07300	10.17700
Butter acid, - - - - -	0.15875		0.07436
Acetic acid, - - - - -	0.12506		0.04571
Fellic or Cholic acid, with traces of Margarin Olein Billifulvin, }	0.29950	0.06200	0.04300
Billifulvin, Billifellic acid, and two other peculiar substances, - }	0.87600	0.44500	0.26800
A peculiar substance, soluble in al- cohol of 30° - - - - }	0.03800	0.01300	0.00600
A peculiar substance, insoluble in water, alcohol and ether, - }	0.00500	0.00200	0.00100
Iodine, - - - - -	0.02950	0.04060	0.03740
Chlorine and traces of Bromine,	0.08400	0.15880	0.14880
Phosphoric acid, - - - - -	0.05365	0.07890	0.09133
Sulphuric acid, - - - - -	0.01010	0.08595	0.07100
Phosphorus, - - - - -	0.00754	0.01136	0.02125
Lime, - - - - -	0.08170	0.16780	0.15150
Magnesia, - - - - -	0.00380	0.01230	0.00886
Soda, - - - - -	0.01790	0.06810	0.05540
Iron, - - - - -	Traces,		
Loss, - - - - -	2.56900	2.60319	3.00943
	100.00000	100.00000	100.00000

Part Second.

REVIEWS AND NOTICES OF NEW WORKS.

- I. — *Treatise on Epidemic Cholera; being lectures delivered under the authority of the Faculty of Medicine of Paris.* By AMBROISE TARDIEU, M. D., Adjunct Professor in the faculty of Medicine; Physician of the Central Bureau of the Hospitals of Paris. Translated from the French, by SAMUEL LEE BIGELOW, M. D., with an appendix. Boston: Ticknor, Reed and Fields, 1849.

This work had scarcely been written in Paris, when it was translated and published in Boston, under the supervision of competent American medical authority. The reputation of the author, and his position as *adjunct professor* to the faculty of medicine of Paris, are ample guarantees for the faithful and able manner in which the work has been executed. Always anxious to confine ourselves to the details of practical knowledge; to facts as accumulated by writers, we shall not, in this instance, follow our author in his rapid, yet graphic sketch of the definition and historical sketch of Epidemic Cholera. Those who desire to read a chaste and lucid etymological and historical account of this scourge, may turn to the pages of the work, with the certainty of being instructed and edified.

After dismissing, in a few words, the history of this disease our author proceeds, with all possible brevity, yet at the same time with extraordinary clearness and accuracy, to point out the symptoms and progress of Cholera. Nothing can exceed the elegance, the preciseness, and the *truth* of his description of the various stages and phenomena of this epidemic. He describes the symptoms under *periods*, as the first, and second; he then enumerates the *precursory phenomena*, such as *diarrhœa, vomiting, abdominal pains, anorexia, state of the tongue, urinary secretion, cramps, headache, derangement of the senses, intellectual faculties, state of the strength, voice, respiration, circulation, temperature, features, &c.* All these features of the disease are described with fearful accuracy and force of language; we shall, however, only notice some of his observations on the *temperature* and features, which obtain in the latter stages of cholera. The perversion of the function of hæmatisis and the circulation of the blood invariably coincides says,

the author, with a reduction of the general temperature of the body. This fact is evinced by the temperature of the expired air, being from 10 to 12 degrees below its ordinary normal standard. Thermometrical researches, instituted by Czermack, Gaymard and Gerardin, show the maximum degree of coldness in choleric patients to be first in the feet, next in the hands, tongue, face and neck. The tip of the nose is said, by some writers, to be colder than the feet; this accords with our own experience. M. Czermack asserts that when the general temperature of the body sinks to 74 degrees, (Farh.,) death is inevitable and close at hand. M. Monneret, who seems to emulate, in his thermometrical investigations, our talented fellow-citizen, Dr. Dowler, made a great number of experiments on cholera patients at Constantinople, and concluded that the temperature rarely fell below the natural standard. These contradictory results can only be reconciled by stating that these experiments were made by these gentlemen respectively, in different parts of the body. At all events, every one agrees that the circulation of the blood is imperfectly carried on; that it shuns the periphery; that the function of respiration is greatly modified and from these two causes combined, the temperature is materially reduced.

In many cases that came under observation, the heat of the body was extinguished before life itself. Notwithstanding this excessive reduction of heat, in the algid state of cholera, the patient complains incessantly of great internal heat, being impatient even under the lightest covering. This proceeds from exalted sensibility and irritability of the sentient nerves, and is witnessed in several other diseases, accompanied with cold surface, &c., such as congestive fever, and the like. Speaking of the expression of the *features* in cholera, the author's description is so accurate and graphic, we reproduce his language. "The aspect of the physiognomy in cholera is so peculiar, that all authors agree in their delineation of its characteristics. The face is very early painfully contracted, and numerous wrinkles furrow the brow. The cheeks become hollow; the lips thin and are pressed upon the teeth; the most sullen sadness is depicted upon the features; the natural complexion is changed to the livid bluish tint of the cold stage; the eyes become more and more sunken in the orbit and are surrounded by a dark circle."

The expression becomes by degrees lost, and it appears as though the veil of death was stretched over the face of the choleric before life has left the body. At last, the shining membrane of the eye grows dim; its surface becomes wrinkled; sinks down, and sometimes becomes dry. The immovable lids leave the eyes uncovered; the inflamed conjunctiva becomes injected and covered with spots of blood, which aids in giving to the countenance an aspect more terrible and sinister, perhaps, than that of death."

Every one who has witnessed cases of cholera, hastening to a fatal termination, will recognize, in the above picture, a correct delineation of the real features of this relentless disease.

The next subject which enlists the author's attention, is its "*Complications and Secondary Affections.*" During the progress of a case of

cholera, certain morbid phenomena, totally distinct from the original symptoms, those symptoms which usually mark the course and steady progress of the affection, manifest themselves. These complications are peritonitis, jaundice, gangrene, œdema of the lungs, erysipelas of the face, abscesses and ulceration of the eye-lids, all of which seem to be accidental, according to the observation of authors. Secondary affections, by far more common than the above complications, constitute an essential part of the history of cholera. Wherever this disease has prevailed, certain secondary symptoms have attended its progress, and modified its features. These, therefore, claim our author's attention, and are entitled to our serious consideration. It is about the close of the second period, or the commencement of convalescence, that such secondary symptoms begin to be manifested. It is in warm latitudes that these consecutive symptoms assume a peculiar character; a character which the Bengal physicians designate as appertaining to the ordinary bilious diseases of those regions. In the latitude of New Orleans, the choleric patient rarely fell a victim to bilious disease; a fever, characterized by typhoid symptoms, usually supervened in the latter stages of the affection, if the patient survived the *acute* stage, so to speak, of the disease. These secondary epiphenomena are caused by gastro intestinal inflammation, pulmonary congestion, latent pneumonia, cerebral engorgement, swelling of the parotids and tumefaction of the sub-maxillary glands, especially in subjects predisposed to local engorgements of the glandular organs. In some subjects, particularly females, a species of cutaneous eruption is not unfrequently observed to appear over certain parts of the body.

Cholera undoubtedly belongs to the great family of *fevers*, and, view it as we may, the analogy holds good throughout all stages of the disease. Examine its *prodromes*, its premonitory symptoms, the *cold* or *collapsed* stage, and the period of *re-action*. Are not all these symptoms proofs of its febrile nature? In those who re-act, after having passed the stage of algidity, do we not behold all the phenomena characterizing our malignant forms of typhoid and intermittent fevers, &c? At one period of the disease, we have usually a diarrhœa, with borborygmi, eructations, and evidences of an incipient fever; at another, adynamia, ataxia; and, finally, if the patient passes the ordeal, we have re-action,—such as marks the course of all our violent miasmatic fevers,—with hot skin, quick pulse, dry tongue, and cerebral symptoms.

In a word, the only difference between cholera and some forms of our malignant fevers, may be found in the fact, that the former disease is too rapid in its career, hastens through its stages with such speed as to confound both patient and physician, and hence leads us to regard it as a disease *sui generis*, totally different from any other with which we are acquainted.

We will not pause here to trace the acknowledged analogy between cholera and congestive fever. The phenomena of the two diseases are similar in several respects; in some they are, to all appearance, identical, and it is this resemblance which justifies the statement above made.

But, to return to the book under consideration. When the cholera fails to destroy, the re-action is sometimes slow, vacillating and irregu-

lar; the pulse is weak, soft and hesitating. Again, in other subjects, the re-action—the consecutive fever is violent—rapid, in proportion to the previous depression and the intensity of the cyanosis. In the first cases, the system gradually, but steadily, recovers its ordinary healthy functions; in the second, the fever is considerable; the brain congested; the tongue dry and fuliginous; the thirst great and tormenting, and the patient often expires with congestion of the lungs, brain, or gastro-enteric inflammation. The Central Committee of the department of the Seine has furnished some statistical facts, in regard to the duration of cholera, which we subjoin:

"In 4,907 cases of this disease				204	persisted from	1	to	6	hours	
"	"	"	"	615	"	"	6	"	12	"
"	"	"	"	392	"	"	12	"	18	"
"	"	"	"	1173	"	"	18	"	24	"
"	"	"	"	823	"	"	1	"	2	days
"	"	"	"	502	"	"	2	"	3	"
"	"	"	"	382	"	"	3	"	4	"
"	"	"	"	240	"	"	4	"	5	"
"	"	"	"	125	"	"	5	"	6	"
"	"	"	"	79	"	"	6	"	7	"
"	"	"	"	171	"	"	7	"	8	"
"	"	"	"	35	"	"	8	"	9	"
"	"	"	"	36	"	"	9	"	10	"
"	"	"	"	111	"	"	10	"	15	"
"	"	"	"	19	"	"	15	"	20	"

The author states, what is generally admitted, that the duration of the disease is shortened in proportion to the intensity of the epidemic. Four forms of cholera are admitted by the author: the *grave cholera*, the mild form or *cholérine*, *foudroyant cholera*, and paralytic cholera. These forms, although arbitrary, yet they may serve to convey a more accurate idea of the disease, than if comprehended under the general name of cholera.

The four forms of the disease are then carefully described; but we see nothing in all this worthy of special notice. We shall, therefore, turn our attention first to the "*Pathological Anatomy*" of cholera, and endeavor to furnish a *resume* of any valuable facts laid down by the author. The most constant lesions, not to notice exceptional cases, are found in the alterations of the composition of the blood; in the aspect of the gastro-intestinal mucous membranes, and in the state of the nervous system. M. Tardieu describes the peritoneal surface as sticky, shining, and seeming as if varnished, and this, too, in all cases. The mesenteric vessels are engorged, and impart a violet hue to the structure. He describes the calibre of the intestinal tube as enlarged, and not contracted. This may be caused by the general relaxation of the muscular structures, in which the muscular layer of the alimentary tube participates, after life is extinct.

The contents of the stomach and bowels have been carefully studied and analyzed; but no two have agreed on this point, and the statements are, therefore, contradictory. Whilst some describe a peculiar fluid, of a soft, white, or grayish appearance, adherent to the gastro-intestinal surface, others, again, describe it as of a bluish, bordering on gray, becom-

ing of a deeper tint the longer the disease continues, prior to death. The serosity in the stomach and intestines does not, as a general rule, coagulate on the application of heat; and, in many instances, the re-action is *alkaline*. Hermann asserts, on the other hand, that it is *acid*. Both may be in the right; but may we not reconcile these conflicting statements, in the supposition that, perhaps, alkaline medicines, in the one instance, and acids in the other, may have been given before death? This is the more probable, since their experiments were made on subjects that had been in large public hospitals, where, it is reasonable to suppose, the previous treatment was unknown to the experimentors. M. Serres attaches great importance to the presence of a number of small bodies, hard, of an oval form, opaque, of a dull white, and scattered over the œsophagus, stomach, duodenum, and throughout the entire extent of the mucous lining of the small intestines. They vary in size, from a pin's head to that of a small pea. It is on account of the abundance and constant presence of these bodies, that M. Serres has given to cholera the term of "*Psorenterie*," the exact definition of which we are ignorant. These bodies are represented to repose on a more or less injected base, and, when cut into, flatten down, and leave but a small elevation behind. Can this be caused by hypertrophy of the mucous follicles, or engorgement of the villusities, with which the alimentary canal is so abundantly supplied?

The remarks of the author, regarding the pathological alterations of the liver, spleen, pancreas, &c., contain nothing new, and we, therefore, pass on to notice the "*State of the blood and organs of circulation*." The blood is said to experience changes, both in its physical and chemical properties; and repeated attempts have been made to determine in what these changes consist. By some, the blood is represented, in choleric patients, to be dark, thick and viscid, resembling varnish; both the arteries and veins contain black blood, and its color is said to be slowly changed to a light scarlet hue, even by prolonged exposure to the action of the atmosphere. It was coagulated, but the separation into clot and serum is incomplete. Researches, made by M. Donne, prove that the globules of the blood are not altered in any form. It is generally believed, and has been asserted by high authority, that the water and neutral salts, as well as the fibrin and albumen of the blood, are greatly diminished during an attack of the cholera. Late researches, instituted by M. Mialhe, on the evacuations which take place in cholera, demonstrate, that neither fibrin or albumen can be detected in the fluids evacuated; but yields, on the careful application of re-agents, a plentiful precipitate, called by chemists *albuminose*. This principle (albuminose) is analogous, in some respects, to albumen, yet, in others, it is quite different. Like albumen, it is soluble in water, and insoluble in alcohol; both are precipitated by several of the metallic salts; also, by chlorine and tannin. Here the resemblance ceases. When *albuminose* is isolated, says M. Mialhe, it does *not* coagulate by heat, nor acids, and this fact suffices to distinguish the two principles.

The heart, says Tardieu, is diminished in volume, and flabby in some cases; the left cavities are nearly always empty; the right are distended with black blood, seldom fluid, generally coagulated. The ar-

teries are usually empty, sometimes they contain a little dark fluid-blood. The venous system is almost always "gorged with black viscid blood."

On the pleural surfaces, we find a deposit of a "glutinous and stringy substance." The lungs are described as being often healthy; sometimes the posterior and lower part is the seat of more or less engorgement, the result of accident, in all probability. Our post mortem examinations in cholera have convinced us, that, in a large majority of cases, the lungs are collapsed, shrunk, and of a bright pink color; exceptions are, doubtless, to be found in many instances. M. Contour remarks, that of fifty autopsies of cholera in Moscow, he found traces of tubercles in only *three* cases. This fact may throw some light on the etiology of the disease. A close inspection of the *nervous centers* will, at least, explain many of the formidable nervous phenomena, attendant upon an attack of cholera; yet, this examination has not heretofore satisfactorily accounted for all the symptoms which are witnessed in the progress of the disease. Our author describes the cerebral sinuses, and spinal dura mater, as being constantly found gorged with black blood, even coagulated in some instances, and adherent to the parietes. *Post mortem examinations*, made in New Orleans, have not confirmed the views and observations above stated, in relation to the condition of the cerebro-spinal axis, although the condition of things described by M. Tardieu has been occasionally, but not uniformly, witnessed. The arachnoid is described as coated with a sort of sticky varnish. In the rachidian canal, Jachnichen, Markus, and Contour discovered "small white irregular cartilaginous granulations, from the diameter of a mustard seed to that of a lentil," and, when examined with a microscope, appeared to have a fibro-cartilaginous structure. The nervous substance, both of the brain and medulla, appeared to be increased, both in volume and in consistence; they were always the seat of considerable sanguineous congestion. In the ganglionic system of nerves, no change was appreciable. The *genito-urinary* organs likewise experience some morbid alterations. The kidneys are generally, in common with almost all the viscera, the seat of congestion. The bladder is always contracted, closed upon itself, and nearly empty; sometimes it contains a little bloody urine.

The above is but a brief and imperfect resume of the views promulgated in this work, by Mr. Tardieu, on the *pathology* of cholera. They are evidently the sincere convictions of an honest, an impartial, and philosophical mind; a mind accustomed to the rigid analysis of facts, and anxious and willing to seize the truth, and collect the good, wherever they may be found.

In chapter IV, we have a *comparative history of the various epidemics of cholera*, which have appeared from time to time; we shall not stop to notice this part of the subject, as all this may be read in any of the medical dictionaries of the day. We will add, however, that it will be found extremely interesting, and may be perused with advantage.

The succeeding chapter (V.) is devoted to the examination of the *causes* of cholera, and they are divided into telluric, atmospheric, hygi-

enic, constitutional, moral and specific. The evidence, both for and against, all the above specified causes, as productive of cholera, is candidly stated and analyzed, and carefully weighed, and each one is pronounced inadequate to develop the direful scourge. For our part, we have but little doubt, that many causes, named above, may, and do, occasionally combine, if not to originate, at least, to give an increased impulse to the violence and spread of the disease, in particular locations. Felix qui potuit cognoscere rerum causas may, indeed, be quoted on this subject. Analyses of the air, made by the most careful and competent chemists, during the prevalence of cholera, have shed little or no light on the question. Dr. Prout found its density slightly increased; Dr. Luskowski, of Moscow, found no change in the composition of the air. Others have sought for the cause of the disease in electricity, asserting that, during the *acme* of an epidemic, the most powerful machine throws off extremely feeble, scarcely perceptible, sparks, becoming larger, longer and stronger as the disease declines. It is well known, to the scientific, that experiments in electricity, to be relied on, must be conducted with the greatest precaution, as a vapor, a cloud, or a trifling mist may entirely destroy the value of metereological facts and phenomena, and we are, therefore, inclined to think that proper steps were not taken to guard against errors on this point. We must, then, rejecting such hypothetical explanations, look to other agents as the prime cause of the pestilence.

During the prevalence of the cholera in the east, and in the centre of Europe, it was frequently observed, that the disease declined with the appearance of storms and tornadoes. This led many to believe that a connection, as cause and effect, existed between the two. At Moscow, in '47, Dr. Blumenthal noticed that the condensing apparatus retained electricity with less force; that the power of the loadstone was greatly diminished, and that the needle did not present its habitual declination. Again, at St. Petersburg, while the cholera was at its maximum, the action of magnetism was almost neutralized, but gradually resumed its former power as the disease declined. For example, a loadstone, which at other times would sustain eighty pounds, during the cholera epidemic could only sustain fourteen pounds, and this power fluctuated with the rise and declension of the disease!

Before dismissing this subject, it is but justice to M. Tardieu to state, that, after fairly enumerating all the causes of cholera, whether hypothetical or real, put forth by writers, he boldly combats and overthrows them, with arguments as ingenious as they are powerful and convincing. Unwilling to enter minutely into the subject of diagnosis and prognosis of the disease, so fully portrayed by the author, we shall pass on to the consideration of his mode of *Treatment*, and then leave this excellent work to the judgment of the profession.

In limine; a question here suggests itself to the mind, viz: Can we deduce any thing like a rational mode of *treatment* from the *pathology* of the disease? The *lesions* found after death, as reported by different writers in almost every part of the world, are, at best, contradictory, confused, and illy accord with the present enlightened state of pathological science. This is not the case with regard to many other

diseases, characterized, like cholera, by a uniform train of symptoms. The inevitable inference, then, is, that we really know little or nothing, positively, of this extraordinary disease.

How then, are we to institute a safe and sound method of treatment? As yet it has not, it cannot, be done until the knife, the microscope, chemical analysis, or some other more searching means shall have been discovered to enable us to fathom the mysteries of the deranged organism.

Under the head of *prophylactic treatment*, the author urges the necessity of guarding against humidity; providing ones self with good and nourishing food; avoiding all manner of excesses, and preserving calmness and firmness of mind during the prevalence of the disease. He likewise advises us to wear a flannel band about the abdomen, next the skin, and to adopt such measures as will most effectually protect one against cold and dampness. This advice is excellent, for we have reason to believe that it has proved prophylactic under our observation. Those who, from their position and circumstances in life, are already in the possession of the above necessary comforts for the enjoyment of health, should make no material change in their regimen. Excesses of every kind, whether gastronomic or venereal, should be scrupulously eschewed. Our attention is next directed to the treatment of the *prodromes* or *premonitory* symptoms of the disease. To overlook these, is to commit a capital error, an error which it is sometimes difficult, and not unfrequently impossible, to correct. The premonitory symptoms of the disease are not always characterized by diarrhœa; a peculiar depression of spirits, heaviness of the head, vertigo, and other evidences of nervous irritability frequently harrass the patient, before the true nature of the disease is made manifest. These are often the forerunners of an attack, and are entitled to our timely consideration, no less than the diarrhœa.

In the treatment of the *first period of the disease*, that is, after purging and vomiting have set in, M. Tardieu speaks highly of opium and its preparations. Bleeding, except in the earliest stages of the disease, and in robust constitutions, should rarely be practiced. Brandy, laudanum and oil of castor, four ounces of the first, eighty drops of the second, and two teaspoonsful, of the third, form a combination in common use in Calcutta, and is said to arrest the first symptoms of the disease.

Our author speaks in exalted terms of *ipeacacuan* in the first stages of the disease; not simply as an emetic, in ten grain doses, but to be continued every half an hour afterwards, in from one to five grain doses, until all threatening symptoms shall have disappeared. He quotes M. M. Druat, of Vienna, Andral, Gueneau de Mussy, Husson and M. Solon, all of whom have tested its powers, and speak in its praises. He notices the English practice; a combination of calomel and opium, and thinks it may change the nature of the evacuations and correct the secretions. M. M. Trousseau and Recamier speak highly of the *sulphate of soda* in two drachm doses, in cholera. Dr. Leo, of Poland, reposes great confidence in the *subnitrate of bismuth*, in three grain doses repeated every two hours, alone or combined with an equal quantity of rhubarb. We are forced to confess that this treatment would have availed but

little in this latitude, in violent attacks of cholera. The *piper cubeba*, combined with cayenne pepper, has been highly recommended by Dr. Carquet, of France; it may be given by injection, as well as by the mouth.

In the Indies and at Berlin, the *oil of cujeput* has acquired quite a reputation in the cure of cholera. We have never tried it in this country; it is, however, known to be an energetic diaphoretic stimulant, and as such is entitled to consideration. The Egyptian doctors treat the cholera with a marvellous substance called "*hachish*," a powerful nervous stimulant, and one capable, it is said, on good authority, of reviving the exhausted system in the latter stages of the disease. It is given in from ten to thirty drops, dissolved in alcohol.

We have been led to notice, somewhat in detail, a few of the most novel and active medicaments mentioned in the work under notice; some of them are entitled to our serious consideration, and we mention them, in order that our therapeutics of cholera may be as much amplified as possible. In the forming stage of the disease, the simplest means may successfully combat and overcome the threatening symptoms; this period once passed, and the patient in a confirmed collapse, no human skill, however well directed, can avail. Nevertheless, cases do now and then recover, under the most desperate circumstances, but here we can scarcely claim the case. We have already exceeded our limits, but the interest now every where attached to the subject, and the admirable manner in which our author has handled the question, have led us to inflict a rather tedious notice upon the reader. For this, we must apologize, and now hasten to a close.

The "*appendix*" must add greatly to the intrinsic value of the work, especially in this country; but most of the facts contained therein are already familiar to the American practitioner, and require no notice from us. *En passant*, we beg to remind the "*Fellow of the Massachusetts Medical Society*," author of the "*appendix*," that he has, *per errorem*, credited, at page 216, an extract, copied from this journal, to our contemporary, the *Charleston Medical Review*; *tribuere cuique suum*. To Dr. Bigelow, the profession is indebted for a neat and elegant translation from the French—rather a labor of love than one of profit. In conclusion, we must admit that these lectures embody a more correct and systematic history both of the symptoms and etiology of cholera, than any thing on the same subject that has fallen into our hands.

We therefore commend the work to the profession. It may be had at Mr. Steel's, 14 Camp street.

II.—*The Pathology and Treatment of Cholera, with an Appendix, containing his latest instructions to planters and heads of families, (remote from medical advice,) in regard to its prevention and cure.*
By SAM. A. CARTWRIGHT, M. D.

Under the above title, has recently been issued a pamphlet, purporting to be "intended for medical men, not for sophomores or pretenders, but for intelligent and well read members of the profession." *Verbum sat.* We claim nothing more than the honor of being a member of the regular school of Hippocrates; we have carefully perused the pamphlet; we cannot subscribe to all the views therein contained, and, since to be silent would be in a great measure acquiescing to the sentiments of the author, we take the liberty of giving expression to our thoughts. We never read a book that we did not find something useful in its pages; so in the present instance; but there is, also, much of, at least, doubtful utility, as we shall endeavor to demonstrate.

"Many important facts," says the author, "connected with the subject of cholera, have been uncharitably rejected, without a hearing or annexation of the evidence on which they are predicated, merely because they cannot be reconciled with other facts already known. Such a procedure closes the door to the inquirer after truth, by rejecting truth without examination, arrests the further progress in knowledge, and leads to unprofitable disputation."

Again, says the author, "charity is a virtue, whose cultivation not only makes the heart better, but the head wiser."

To all of which we say, most heartily, amen! All that we say shall be with an entire view to the advancement of medical knowledge, whether negatively or affirmatively, and, as the best evidence of this intention, we will confine ourselves to the pages of a Medical Journal, in our humble opinion, the only proper medium for the dissemination of medical information. A large portion of the author's pamphlet is devoted to a species of "advice gratis" to physicians in general, together with quite a caustic tirade on quacks and quackery. Now, each of these may be considered a very good dish in its way; but for the professional man, who seats himself for the purpose of satiating an appetite for the scientific demonstration of some deeply mystified medical subject, as cholera, they must be regarded as altogether inadmissible. We believe it is customary in the best of our medical schools, for some member of the faculties of said schools to deliver what is called a "charge," to the graduating class of each year, and, in this charge, are included all the most approved, all the stereotyped items of advice necessary to the physician, about to launch his boat on the sea of professional life. This charge, together with a proper preliminary education, we regard as all-sufficient for the proper deportment of the members of the profession. Men will think and act for themselves, and any public effort, (more especially in pamphlet form,) to make an innovation on their established habits, let it be offered in whatever spirit it may, but tends to make the matter worse.

But to the consideration of the author's pathology, treatment, &c., of cholera; everything becomes subservient to this.

The author highly compliments the anatomists of our own city, and most deservedly too; his remarks breathe a spirit of liberality, with which we are much pleased, both on account of its appropriateness and rarity. He then proceeds to give the results of his post mortem examinations, as follows :

"The great venous trunks were found tinged with a thick black blood, and the pulmonary arteries filled with the same grunous fluid, The pulmonary veins going to the left side of the heart, comparatively empty, as, also, that side of the heart, and the whole arterial system everywhere, except the pulmonary arteries. In every cavity, a fluid, like rice water, was discovered; in the kidneys, in the bladder, in the uterus, and even in the fallopian tubes. The spinal column and cranium contained a great excess of serum. The exhalent arteries of all the membranous surfaces had parted with their serous portion of the arterial blood contained in them, in the shape of rice water exundation, bedewing the surface of the membranes to which they are distributed. The fluid part of the blood having escaped, the fibrin and red globules remaining gave to the membranes that peculiar leaden or straw color, so conspicuous in the mucous coat of the intestines, and invariably present in all the numerous post mortem examinations. But, in the bowels, another source of rice water was detected, lucid as that derived from the capillary arteries. The thoracic duct was found empty, the great trunk of all the absorbents, and the bowels contained a substance, having the characteristics of blood, in every particular except color. Where did this white blood come from? The empty thoracic duct is in proof that it had poured back its contents, by a retrograde action, into the alimentary canal, that the absorbents had actually vomited back the constituents of the blood into the *prima via*, instead of carrying the same to the right side of the heart. It could not get to the heart, because the heart was full, and the vena cava and sub-clavian, in a state of utmost distention from the congestion of venous blood therein, which could not move through the lungs. Deprived of the stimulus of the chyle, the blood in the heart underwent decomposition, and the fibrin separated from the mass in the shape of oyster, like polypous substance, which the scalpel revealed to the eye and touch. The knife revealed the fact that the circulation in the liver had been suspended from the same cause. The blood from that organ could not be forced into the cava and heart, already full; the right side of the heart could not empty itself, because the pulmonary arteries were full, and the pulmonary veins contained no red blood."

We have thus quoted, at length, most of the post mortem examinations and pathological deductions of the author. Now, let us see how they compare with those of others, and whether some of them, at least, cannot be demonstrated to be incorrect. We shall pursue a course, too, recommended and adopted by the author himself—that of quoting good authority, books themselves. We have accidentally before us, the following list: * Bell and Stokes, † Watson, ‡ Armstrong, § Brigham, || Mackintosh and ¶ Eberle. Doubtless, we shall be enabled to find all we want even from this limited number, and we feel quite confident they will all be deemed unexceptionable by the author.

1st. Is the turgid or congested state of the great venous trunks and heart a constant post mortem appearance? We are willing to acknowledge that this phenomenon does exist in many instances, but that there

* Bell and Stokes' Practice. † Watson's Practice of Physic. ‡ Brigham:
 || Treatise on Epidemic Cholera. § Mackintosh's Practice. ¶ Eberle's
 Practice.

are many exceptions to the rule is beyond dispute. At Ceylon, Mr. Marshall made the following observation: "The right side of the heart and venous trunks were often unusually filled with blood; sometimes the heart was more flaccid than natural." (Mackintosh.) This latter state of things we have, ourself, noticed in several instances. But what does the Madras medical report say? (Brigham.) "The right auricle and ventricle being gorged with blood is nothing peculiar to cholera; but some dissections have shown the *left cavities* to be filled even with dark or black blood, which we may reckon as a morbid appearance more peculiar to it."

Grant, however, that the author *has* always observed this congested state of the venous trunks and right side of the heart, will he for one moment contend that it is a *pathological* phenomenon? (We cannot believe that all post mortem appearances are pathological.) If it is pathological, how can we account for the fact that one of the most remarkable symptoms connected with cholera is "unimpaired intellect?"

Surely, if the vena cava superior, together with the right side of the heart, be so completely distended with blood during the life of the patient, this grave state of things must re-act on the brain, which re-action would soon be made quite evident to us.

2d. Are the pulmonary arteries always filled with the same "grumous fluid" as the above mentioned veins? We say, no! In the Bengal medical report, drawn up and published soon after the appearance of the disease in India, (Brigham,) we find the following: "The lungs have not unfrequently been found in a natural state, even in cases where much oppression of respiration had existed previously to death." Dr. John Kinnis, of Mauritius, (Brigham,) says: "The circulating system presented, in general, no deviation from the usual appearance; none of that congestion in the lungs or any of the viscera, which others have found." Dr. Kirke, Vennel, Hospital of Greenock, (Brigham,) found the following appearances in three of four cases examined: In one, "the lungs seemed healthy," &c.; in the second, "very collapsed lungs;" in the third, "lungs collapsed." Dr. Bell (Bell and Stokes) gives us a general summary of the observations of the French pathologists, and, in the same, he says: "The lungs were often flaccid and collapsed, and, sometimes, congested at their lower part." Again, "In the United States the post mortem observations in cholera were the same as those made elsewhere; and I am not aware of any new features in the occasional organic changes having been noticed." But want of space compels us to withhold further quotation; indeed, we are, for this reason, forced to be quite limited throughout.

So far as our own post mortem observations have extended, we must say, that a collapse state of the lungs is by far the most constant, and in such lungs we have generally found rather a deficiency of blood. We have never seen a truly congested lung in the body of a man dead of cholera, and the nearest approach to such a condition has been a mere sugillation, a stasis of the fluids in the posterior portion of lungs in subjects which have lain on their backs during several hours after death. Again, we have opened the bodies of men who, during their

illness, exhibited well marked general symptoms of pulmonary congestion, and at first we were surprised and disappointed to find the lungs in an entirely healthy condition. After this, however, we made it a point to physically explore the chests of patients laboring under such symptoms, and we must say that auscultation and percussion have never revealed to us the existence of pulmonary congestion during the life of a cholera patient. These symptoms, then, must be dependant on some other cause than that of the accumulation of the "grumous fluid;" and, so far, our observations have led us to regard them as consequent rather on an *asthmatic* condition of the lungs.

3d. Is a "fluid like rice water" to be found in every cavity, "in the kidneys, in the bladder, in the uterus, and even in the fallopian tubes?" Who, besides the author, will assert this? In all our limited professional acquaintance we do not recollect ever having heard the *half* of it asserted, and do not know of a book containing such an assertion; (though there are innumerable authorities to the contrary;) nor have our own personal observations ever, in a single instance, revealed to us such a state of affairs.

So far as effusion on the brain is concerned, we have never seen anything at all striking; if the anatomical description of a healthy brain, to be found in our text books, be correct, then we are sure of having seen more healthy brains in subjects dead of cholera than any other kind; the only anormal appearance, and in a few cases only, being a more or less turgid condition of the veins belonging to the membranes of the brain. But let us adduce a little authority, or we shall be accused of pedantry. The Bengal report says: "The brain was generally of natural appearance. In one or two instances, lymph was effused between its membranes, near the coronal suture, so as to cause extensive adhesions." The Madras report says: "In the head, appearances of congestion, and even of extravasation, have been frequently observed; but not so uniformly, nor to such an extent, as to require any particular notice." Dr. Bell, in his summary of French observation, says: "No visible lesion was observed in the brain and spinal marrow, or their membranes; except we regard as such venous injection with black viscid blood."

The above remarks will apply to the spinal cord; we have been standing by when others were sure they could discover evident changes, as inflammation, ramollissement, effusion, &c.; but we could never appreciate the demonstration.

In relation to the pleural, peritoneal and pericardial cavities, we find ourself even more decidedly opposed to the author. In one or two instances, we have seen from a half to one fluid ounce of clear serum (never any "rice water") between the surfaces of the pleura or pericardium; but, in a large majority of the bodies examined, there appeared to us a deficiency of natural moisture in all these cavities. But we adduce authority here again, viz: Brigham, Bell and Stokes, Mackintosh and Eberle.

What shall we say in relation to the condition of the kidneys and bladder? We must confess that the author's observations on this point completely take us by surprise. Heretofore, we have been under the

impression that one of the *most* constant post mortem appearances in this disease was "firm contraction of the bladder;" a total absence of anything in the shape of a fluid. Surely it will not be required of us to *name* authority on this point; suffice it to say, we have never heard but one opinion expressed on this subject. We have heard of urine being found in the bladders of patients who died of "Cholera Sicca," or even those who died very early from the ordinary form of cholera; but that "rice water" is ever present in this organ, or in the pelvis of the kidney, is something new to us.

We have seen but two uteri examined; in neither of these was there the slightest appreciable lesion. The examinations were not extended to the fallopian tubes; but reasoning from analogy, we should say, most unhesitatingly, that there was no "rice water" in either pair; since the lining membranes of these tubes is said by anatomists to be but a continuation of the peritoneum itself, the general cavity of which, we have said, is oftener unnaturally dry than otherwise.

"But," says the author, "in the bowels another source of rice water was detected, besides that derived from the capillary arteries. The thoracic duct was found empty, the great trunk of all the absorbents, (?) and the bowels contained a substance having the chemical characteristics of blood in every particular, except color. Where did this white blood come from? The empty thoracic duct is in proof that it had poured back its contents by a retrograde action into the alimentary canal, that the absorbents had actually vomited the constituents of the blood into the prima via, instead of carrying the same on to the right side of the heart."

Now, here is a very pretty sounding theory indeed, and one which may seem very philosophical to the benighted "planters and heads of families;" but, when properly scanned, it must at once be discovered that there is no foundation whatever. Admit, however, that this so called retrograde action (a phenomenon, the existence of which is altogether a gratuitous assertion,) is "another source of rice water," and, in the name of common sense, *how much* rice water could the thoracic duct and all its intestinal tributaries contribute? Surely the author will allow, that when once emptied of what they may contain at the commencement of this retrograde action, they can by no possible means furnish more; if so, we will be liberal, and allow him four fluid ounces as the amount of their primary contents. What becomes, then, the proportion of their contribution to the general waste? Is it not too insignificant to notice?

But let us look at the other side of the picture! The anatomists tell us that the thoracic duct and its accessaries, the lymphatics, (more especially the latter,) are well supplied with *valves*, duplicatures of their lining membranes, which serve to *prevent* regurgitation of the fluid contained within them. Admit, then, what they tell us to be true, (has the author any objection?) and we argue that the phenomenon, said by the author to take place, is mechanically impossible; and when a thing becomes mechanically impossible, something much more decidedly mechanical than words is required to overcome the resistance offered.

If, however, the post mortem observation of the author be correct, viz: that "the thoracic duct was found empty," (and we know nothing to the contrary,) could it not be more reasonably accounted for by sup-

posing that the deficiency in the contents of the duct was consequent on the cessation of the process of absorption, the source whence the natural supply is derived? True, this reasoning would not afford us a supply of rice water in the intestines, and might put us to the trouble of seeking another source of the fluid, but better far is this than that we should kneel at the shrine of erroneous theory.

Again, the author says: "Deprived of the stimulus of the chyle, the blood in the heart underwent decomposition, and the fibrin separated from the mass in the shape of oyster-like polypous substances, which the scalpel revealed to the eye and touch."

Surely the author does not mean to say that these "polypous substances" are at all peculiar to cholera; nor can he mean, at this late day, to tell us that they are the result of deficiency of chyle in the blood! If the latter be true, why is it that these polypi are met with nowhere else in the circulating system than in the heart and adjoining mouths of vessels? Why, too, is it that they are firmer and larger in subjects who have died a few hours after the reception of mechanical injuries, cases wherein the blood is wholly unchanged? We beg leave to digress somewhat, and relate an anecdote which may serve to illustrate the position we would assume on this point.

During our "student's life" in Philadelphia we, one day, together with a fellow student, managed to secure the heart of a man who had died very recently from the effects of an extensive wound inflicted in the abdomen by a knife. (Death took place some three or four hours after the reception of the injury). We were studying anatomy at the time, and invited several members of the private class to which we belonged to be present at our demonstration of the heart. On laying open the ventricles with the scalpel, imagine our astonishment (we were only beginners, recollect,) when we beheld both these cavities nearly filled with a solid fleshy substance, the same extending considerably into the pulmonary artery, and into each auricle! Here was enough, with us, to account for death, and we really began to doubt whether the man could possibly have died from the effects of the wound. All, however, at once agreed that we should call in a medical gentleman who lived near by, and whom we knew to be a good pathologist. He very kindly responded, and, as soon as he saw the heart, began to laugh most heartily, much to our annoyance, who thought we had made a wonderful discovery. Soon, however, he explained to us the nature of the substance, and the reason of its being deposited in the heart; he showed us that the same mechanical principle acted here that acts when we "whip" a stream of freshly drawn blood with a bunch of wire; he told us, too, that we would find these "polypi of the heart" in subjects dying of all diseases, or of no disease at all, as in the present instance. All of this we have since most fully realized. We have, also, heard the subject canvassed in various lecture rooms, and the mechanical explanation is, so far as we are aware, the most approved.

Thus, we have cursorily reviewed the author's observations on the post mortem appearances in cholera, together with some of his consequent deductions. It may seem as if we had set out with the determination to differ with him on every point connected with the subject,

but we disclaim any such intention. In determining the true pathology of a disease, we cannot believe that highly contradictory post mortem appearances and observations should be taken, *per se*, as evidence of the specific nature of such disease. Different subjects dying in different stages of the same disease, or being of different diatheses, or laboring under complications with other diseases, or subject to different plans of treatment, may present phenomena under the scalpel so totally dissimilar that it would be but madness did we attempt, each one of us, to establish a pathology on the results of our own individual observations. The pathology of cholera can only be determined by that mind which shall be so impartial, so devoid of enthusiasm, that it will, both separatively and collectively, study *all* the phenomena which the scalpel of ages shall have revealed, together with each and every circumstance connected with the confused and contradictory mass; then, if possible, reducing the whole to some general truism.

In making our quotations from authors, it has been only with a view of reminding the author of the pamphlet how completely his post mortem observations are at variance with those of many other members of the profession; men, too, whom 'twould be but *charitable* to admit, are quite as capable of drawing a deduction as the author himself. To show, moreover, how easy it is for men to differ, more especially doctors, we will beg leave to say, that many of our observations, which we have taken the liberty of offering in opposition to those of our respected senior, were made on some of the *very same* subjects which the author himself examined; side by side we stood (with sundry others of the profession) over these bodies in the "dead house" of the Charity Hospital searching for the pathology of cholera, and little did we dream that bladders, which we humbly regarded as "contracted into the size of a walnut," were by the author recorded as filled with "rice water;" that the pelvis of the kidney, which we deemed difficult of demonstration, so great was the contraction, was recorded by the author as containing "rice water;" that the pleura, pericardium and peritoneum, which we thought unusually *dry*, were recorded by the author as containing "rice water;" that the lungs, which we regarded as collapsed, as containing too little blood, were, by the author, recorded as congested; that the rice water in the intestines, which we regarded as being quite simple in a chemical point of view, were, by the author, recorded as "bearing all the chemical characteristics of blood in every particular, except color." But this is only one instance of professional discrepancy of opinion.

The treatment of Cholera. — We now come to the most interesting point connected with cholera. How is the disease to be cured? "That's the question." The author tells us that his plan of treatment, "in the hands of a number of other persons besides his, has succeeded in curing about ninety-nine in a hundred, when put in practice prior to the failure of the pulse from the cholera action."

Now, notwithstanding the author restricts the successful application of his remedies to very narrow limits, certainly the results are startling. When we remember, too, that the average mortality throughout the world, from all diseases combined, amounts to at least six per cent. of the number afflicted, can we be other than astonished at so triumphant

a result, in a disease, too, which is ranked among the scourges of mankind! But is it not still more astonishing, that here, in the valley of the Mississippi, here where the plan of treatment was originated by the author, such alarming fatality should have attended the progress of the disease! Is it not wonderful that the plan has not been adopted by every individual, professional or not, throughout the land? Surely ignorance of its existence cannot be offered as a reason for the limited use of the author's remedies. But let us inquire a little into the matter, at least so far as the profession is concerned; we are sure that all its members have not been asleep. When the cholera made its appearance in this city in December last, we soon found our wards at the hospital crowded with patients, laboring under a disease, most terrible to behold, and quite as new to us (in a practical point of view) as it was terrible. Of course, we were on the alert for the "best remedy," and to whom should we look with more hope than to our senior brethren. We imitated the practice of those around us; we read the books over again, and brought into requisition many of the plans therein recommended, and amongst them, the very plan of the author as published by himself in 1833. A very large majority of the cases entering the hospital at this time were in the last stage of the disease; collapsed, and every plan of treatment failed most signally: occasionally a collapsed case would re-act, but we could scarcely ever determine whether it was from the beneficial effects of the medicine administered. Among those who entered in rather earlier stages of the disease, and on whom medicine did seem to exert some curative influence, we were a long time determining in our own mind which was the best plan of treatment adopted; but when, at last, we did make our selection, we found ourselves by no means most partial to the "cholera powder" of the author. So much, then, for our own humble opinion; now, let us see how others agree with us? In our recent visit to the cotton plantations, (the author's favorite field for operations) on the Yazoo and Mississippi rivers, we had the pleasure of writing and conversing with several highly respectable physicians, practicing in those regions; like us, they had been trying all plans of treatment in cholera—amongst others, the very one in question, but they had not adopted the "cholera powder." (We cannot be expected to mention names; for this is a dangerous thing even when most fully authorized; as men, like the wind, will sometimes change.) Here in New Orleans, we have often heard the "cholera powder" discussed by those who had tried it, but we do not know an instance wherein it has been adopted; there was said to be either "too much calomel," or "too much pepper," or "the aggregate bulk is too great," &c. &c. &c. On the plantations, we found that the negroes often complained most bitterly of the distress occasioned by the large quantity of pepper, and in many instances, it was impossible for them to retain it, or even to swallow it; and this objection we heard of in the hands of other physicians. Again, we have the most reliable authority for stating, that on the plantation of Mr. Bibb, in this State, the "cholera powder" was actually *abandoned* after the administration of a few doses, the negroes absolutely refusing to take it, such was the degree of distress occasioned by the large quantity of pepper. But

personal experience is often most satisfactory on many subjects. In a recent and severe attack of cholera sicca, we took *five* grains best Cayenne pepper, and our consequent suffering was so great that we are quite sure nothing will ever induce us to swallow *twenty*.

But to return to the extraordinary efficacy of the "cholera powder." We find, then, that notwithstanding its success in the hands of the author and "a number of others," still there may be found many, and impartial physicians too, who have not only fully tested its virtues, but have rejected it. We do not now recollect of having seen this powder discussed in the Medical Journals since the reappearance of cholera in America, but we see that Dr. Alexander B. Whiting, health officer at the quarantine establishment of New York, (than whom there can be no better authority; for every line of his report is stamped with a tone of candor, simplicity, modesty and sincerity which must be admired by all who read it,) in his report to the mayor and medical council of New York, (*Southern Medical and Surgical Journal*), says: "In eight other cases, the large doses of calomel, capsicum and camphor, as administered in the practice of Dr. Cartwright, of Mississippi, and suggested to me by S. M. Fox Esqr., were carefully tried, combined with the rubbing in of hot tincture of capsicum. But the results did not encourage the continuation of the treatment." In the original powder of the author, there is too much calomel; let what will be said to the contrary, we must protest against the indiscriminate administration of twenty grains of this medicine to every patient laboring under symptoms of cholera; and more especially negroes, whom we know to be so very susceptible of the specific effects of the agent. The author himself acknowledges that it too often produces pyalism; but he endeavors to attribute such a result to the impurity of the article used. This explanation may satisfy "the people," but medical men know pure calomel as intimately as does the author himself, and, doubtless, have as ample knowledge of its operations on the human system. We have never administered the hydrargyrum cum creta in place of the calomel, but must confess that our faith in it is quite limited. According to the U. S. Dispensatory, twenty grains of the preparation would contain about seven and a half grains of metallic mercury almost wholly unchanged in a chemical point of view, and surely a few grains of calomel would be superior, as an ingredient in the powder, to the same quantity of quicksilver. The remaining thirteen and a half grains of chalk, we cannot help thinking altogether contra-indicated in cholera. The same objection, too, must be urged against the fifteen grains of charcoal. The gum arabic, too, adds considerably to the bulk of the powder, and we know not that it possesses any remedial virtues in the disease. Of late, we find that considerable doubt exists as to the beneficial effects of powdered camphor in cases of cholera. For our own part, we must confess that we have recently become satisfied that the medicine, in this form, exerts little or no beneficial influence, and we have ceased to combine it with any powders we may prescribe. We think it quite doubtful whether, in cases where purging and vomiting of rice water exist, the camphor meets with any agent in the stomach or intestines, which acts as a solvent for it; we have seen it ejected from the stomach totally un-

changed, after having been retained several hours; and we have seen it floating on the surface of rice water evacuations.

Independently, then, of the objections urged against the author's large doses of calomel, capsicum and camphor, we find *forty-three and a half* grains (more than one half the "cholera powder") of *inert* matter—the chalk, charcoal and gum arabic, combined with these medicines; the exclusion of which, it must be admitted, would be quite a desideratum in a disease remarkable for presenting one of the most annoying symptoms to the physician that can well be imagined, viz: inability to retain medicines on the stomach. The author himself tells us that "many cases were met with where the powder could not be retained on the stomach, and some in which it appeared to act as an emetic," and this he avers, too, after he has said that his plan of treatment cures ninety-nine in one hundred cases.

Having shown that the foundation of the author's theory of the pathology of cholera, (his post mortem observations,) is made of very frail material, it would be worse than useless to enter into a consideration of the adaptation of his treatment to the same. It will be seen at once, that however smoothly the bells may chime to his long accustomed and partial ear, discord! must, nevertheless, be the exclamation of him who, for the first time, hears the sound.

In the author's answer to the question, "what is the best course of treatment, &c. &c.?" amongst other points we should have been pleased to notice, but which want of space compels us to pass over, we find the following very curious remark: "*The patient cannot purge and sweat at the same time.*" (We italicize.) It is well this remark is addressed to the people; we should have been sorry to find it within that portion of the pamphlet intended for medical men. Surely, the author does not mean to say, that when the patient laboring under cholera begins to "sweat," his recovery may be more fully anticipated! Who has not seen cases of cholera sweat from the very first moment of attack; aye, and continue to sweat even unto death itself? Who has not seen cases sweating, with warm skin, good pulse, neither vomiting, purging nor cramp, and yet sink gradually to the grave? Who has not seen cases innumerable both "sweating," and purging *simultaneously*, and for hours together? If we were called on for any one symptom which is pathognomonic of cholera, we should at once say "*sweating*." And yet "the people," non professional men, are told that "the patient cannot purge and sweat at the same time."

Should *all* the negroes, *sick and well*, on a plantation where malignant cholera appears, be subjected to *premedication*, in order to check the ravages of the disease?

In the author's "latest instruction to planters and heads of families, &c.," we find the following: "Whenever this form of cholera, ("thunder and lightning cholera" of the author) occurs, I recommend that every negro on the plantation, young and old, have a full dose of my medicine, in proportion to their ages, given to them in their respective houses, without waiting for them to get sick, &c." Now, this advice is given to "planters and heads of families;" but what does the

author say when addressing himself to physicians? In speaking of giving the people "light," he says :

"They could be taught to avoid making themselves more obnoxious to the cholera influence, and more liable to the disease in its worst form, by disturbing their digestive functions with alcoholic drinks, by a change of diet and habits, or by taking nostrums as preventives. They could be taught that the *best preventives* (mark the words,) *is the regular play of all those functions, constituting what is called health*; (we *italicize*); and that any thing which disturbs the system, whether by making the blood scorbutic, as an exclusive animal diet is apt to do, or rob it of its energies, as fear and the depressing passions, or breathing a contaminated atmosphere, or the *unnatural excitement of artificial stimulants*, *increases the liability to an attack*. (We *italicize* again.)"

Was ever the old adage, "blowing hot and cold with the same breath" more appropriate than in the present instance? Here, on the one hand, the *benighted* "people" are told to dose themselves with the author's "cholera powder" to *prevent* cholera; and, on the other, the highly enlightened profession are entertained with a gratuitous recital of what they all knew before hand as well as does the author himself. But, when addressing himself to "the people," the author assumes that his "cholera powder" is an antidote to the cause of cholera. Did the author ever *personally* administer his medicine as above recommended? We undertake to answer the question negatively, because we have the very best authority to that effect.

Under such circumstances, then, we argue that the recommendation is, to say the best of it, a dangerous one. Grant that the author has been informed by others that the plan of premedication has been tried successfully, would he, would these same men who report the success of the plan, be so *uncharitable* as to shut their eyes to other and numerous well authenticated facts which can at once be adduced in direct opposition? Has the author never known cholera to visit a plantation, kill one, two, three, four negroes, and then leave without even attacking another one out of gangs of thirty, fifty, or even one or two hundred? Has he *ever* known *all* the negroes on a plantation to be attacked during the prevalence of the disease? On the contrary, has he not observed that almost invariably some, and often many, escape entirely? Are all these circumstances, then, to pass unheeded, and the "cholera powder" to be poured down the throats of every negro, who may be unfortunate enough to belong to a plantation where the disease exists, merely because Mr. A. B, or C, (planters,) have concluded in their anxiety and enthusiasm, that premedication is proper? Is the profession to be governed by the deductions of men operated on by these powerful passions, when we are all so well aware how difficult it is to derive proper, useful deductions from men in our own ranks, where, amongst those who do work, the work is done solely with a view to the discovery of *truth*? Yet, why should we say more, when the author's own palpable contradiction is argument sufficient to crush so wild a scheme in the very bud. We only hope that when the pamphlet does reach "the people," they may be induced to read it from beginning to end, and not confine themselves to that portion of it intended to shed a flood of light on their benighted minds.

But, as we said before, the author has devoted a large portion of his

pamphlet to a tirade against quacks and quackery: and in said tirade, he scores these poor fellows most unmercifully for daring to vend their nostrums and *preventives*. All right in that connection; but the quack is as well acquainted with the cause of cholera as is the author or any other member of the profession; the author has no personal experience in *his own prevention*; he has given us in one place quite a scientific essay on the impropriety of using *preventives*, or *stimulating* well persons to prevent an attack of cholera; and yet, in the next breath, he tells us, as a *preventive*, to pour down twenty grains of Cayenne pepper, an agent which he himself avows to be one of the most powerful stimulants known. He is not satisfied that his powder shall *cure* ninety-nine in one hundred cases, but he would have us believe that it is possessed of even more powerful, and certainly more important, properties; he would have us believe that it can *prevent* an attack of cholera!

D. W. B.

New Orleans, July 25th, 1849.

LECTURES, ADDRESSES AND MEDICAL CONVENTIONS.

- III.—1st. *Proceedings of the State Medical Convention*, held in Macon, Ga., March, 1849.
- 2d. *Proceedings of the State Medical Convention, of North Carolina*, held at Raleigh, April, 1849.
- 3d. *Medical Reform*, being an Address delivered before the Montgomery Medical Society, by N. L. THOMAS, M. D. Clarkesville, Tenn., May, 1849.
- 4th. *Address, delivered before the Alabama Medical Association*, by THOMAS W. MASON. Montgomery, Ala., March, 1849.
- 5th. *The "Philosophy of Medicine."* *An Address to the Graduates of the Georgia Medical College*, by JOHN LECONTE, M. D., Professor, &c., in the Franklin College of Georgia. March, 1849.

We propose to notice briefly, in the order above, each of these papers, as we have neither space nor time to give a detailed analysis of each under distinct heads. The proceedings of the Georgia Medical Convention afford abundant proof of the zeal, talent and good feeling which prevail among the medical faculty of that State. On the 20th March, 1849, the Convention met and was organized; Dr. Thomas HOXEY was called to the chair, and Dr. S. W. Burney appointed Sect'y. Every part of the State was ably represented, thus evincing that unanimity and cordial co-operation, which are sure guarantees of success in

all experimental matters. We shall glance at a few of the most important resolutions brought before, and adopted by, the Convention. Among these, the first is a recommendation to all the physicians of the State to keep records of physiological, pathological and metereological phenomena. To observe and preserve a full and correct history of the diseases peculiar to the respective districts of each member of the Convention. To note the variations of the thermometers, barometers, atmospheric electricity, thunder storms, rains, clouds, winds, and, indeed, every event or physical change that may develop or modify either sporadic or endemic diseases. A very important resolution was offered and adopted by this Convention, "earnestly recommending to the General Assembly of the State of Georgia to pass a bill for the Registration of Births, Marriages and Deaths, occurring annually in the limits of the State." This step was advised by the National Medical Association, and it is to be hoped that every State in the Union, including Louisiana, will adopt the suggestion. The system of registration, as enforced in England and, we believe, some other European countries, is eminently calculated to aid the political economist in his calculations, as well as the philosophical physician in the investigation of ætiology and history of disease. This fact has been fully and clearly demonstrated to the British government, by the startling and valuable facts which have been recently developed. The registration laws are valuable, not only in regard to the actual condition of all, particularly the lower and poorer classes of people, both in reference to localities, occupation, diet, etc., as affecting their health and longevity, but likewise in enabling the government to form a correct estimate of the origin and spread of particular diseases, and to take such steps as may be best calculated to improve public health.

Dr. Gordon offered a resolution, which was adopted, expressive of the full and entire confidence of the Convention in the integrity and faithful ability with which the *Southern Medical and Surgical Journal* is conducted, and cheerfully recommended it to the patronage of the medical profession. Before the Convention adjourned, a Constitution and By-Laws were adopted, by which it is to be governed in future, and the Convention, *nomine mutando*, resolved itself into the *Medical Society of the State of Georgia*, and will, in time to come, transact business under the above style and title. "The objects of this Society," says the proceedings, "shall be the advancement of medical knowledge; the elevation of professional character; the protection of the interests of its members; the extension of the bounds of medical science, and the promotion of all measures adapted to relieve suffering humanity, and to protect the lives, and improve the health of the community."

These objects are noble and worthy the attention of the profession, and we hope the *Georgia Medical Society* may do much good for the profession and the public.

The code of "Medical Ethics," recommended by the National Medical Convention, was adopted by this Society.

The State Medical Convention of North Carolina, which took place in the Capitol of that old State, was not so fully attended, judging

from the names enrolled, as the Georgia Convention, yet the spirit which actuated those present induces us to hope and believe, that those who failed to attend the first call, will hereafter unite to give more character and influence to the Society, and aid their brethren in the promotion of the objects of the Convention. Those who attended the first meeting of the Society, made an eloquent appeal to the "*Physicians of North Carolina*," urging upon their attention the necessity of organizing the profession of the State, in order to promote the interests of each member, and advance the science of medicine. Dr. Edmund Strudwick was chosen President, and Dr. H. W. McKee Secretary of the Convention. Resolutions were passed indicating the objects, tone and spirit of the Society, and the code of Medical Ethics put forth by the National Association, was adopted for the guidance of the members of the Convention, and recommended to the physicians throughout the State. We wish the Society harmony and success.

The author of the address on "Reform," Dr. Thomas, has been personally known to us for years, and from a knowledge of his talents, skill as a physician, and learning, we were prepared to expect an able address on the subject of the lecture. In this, we were not disappointed. His arguments in favor of reform are at once forcible, clear and convincing. He alludes to the wretched state to which the profession has been reduced by admitting into its ranks members who are ignorant, not only of the elements of physic, but are not well grounded in the first principles of a common collegiate education. He maintains, and we think with reason, that some acquaintance with the so called dead languages should be made an indispensable pre-requisite for graduation—alludes to the general want of qualification in the younger members of the profession, to pass both our Naval and Army Boards, and instances the sixty candidates, of whom only eight were found qualified, examined by the Army Medical Board soon after hostilities commenced with Mexico. This fact is not only a blot upon the reputation of our schools, but a disgrace to the entire profession.

Dr. Thomas denounces, in strong and eloquent terms, every species of quackery, and wages war against all druggists who connive at and encourage the sale of nostrums, panacæas, and all forms of quack physic. He gives a passing salute to the editors of newspapers, for aiding and abetting the quack, by publishing to the world what they know to be impudent falsehoods, in the shape of infallible remedies for all the ills flesh is heir to. To the multiplication and *mis-management* of our medical colleges, he attributes the defective state of medical education. He rebukes, in withering terms, the custom, (now prevalent in some sections of the country,) of electioneering to secure a large class of students, where the examination for a degree is more a matter of form than a test of qualification.

For all these evils, and others to which we have not time to refer, but which have been ably portrayed by the author, legislation is recommended as the remedy.

Dr. T. says: "We should organize in every county in the State, and approach our legislature in a body, demanding such legal enactments as the public good requires. We should bring our influence to bear in elections—withholding our

support from such candidates as refuse to attend to our interest. If our influence was properly exercised throughout the State, suitable laws might readily be obtained."

The lecture is worthy of general perusal.

The address delivered by Dr. Mason before the *Alabama Medical Society* is an excellent piece of composition, and will be read with pleasure and profit by every well informed and christian physician. In its high mission and ultimate aims, Dr. Mason likens the obligations and responsibilities of the physician to those of the divine, as neither should have any thing to do directly with the estates, the social position, or the political relations of their fellow citizens. The author, in this address, points out the origin, nature, objects and necessity of medicine, and what should be the character of its votaries. Like the preceding, this address likewise speaks of the necessity of "medical reform," and from every quarter of the country, and from a thousand tongues, the same voice falls upon our ears, echoing back, "Reform!" "Reform!"—let us elevate the Standard of Medical Education!"

This unanimity of opinion from so many respectable sources, may be hailed as an indication that the profession is indeed determined to take the matter in hand, and do all that a great body of scientific men can accomplish in this important work.

The "Philosophy of Medicine," an address to the graduates of the Georgia Medical College, by Professor Leconte, of the Franklin College, of that State, is an able effort, and will compare favorably, as a philosophical and erudite essay, with any we have seen for a long time. Dr. Leconte, by his writings on the "Parallelism" of disease, and on natural and physiological science, has acquired a wide spread fame, and considerable celebrity in the scientific and reading world. This last effort is equal to any of his former productions, and will do much to elevate the author's name among the medical philosophers of this country. To do justice to the paper, we should be compelled to travel over a range of subjects and analyze a series of facts too complex and multitudinous for the practical character of our Journal. We commend the "Philosophy of Medicine" to our readers, as a masterly effort, and regret that the printer has marred its beauty so seriously by a number of typographical errors; this, however, is not chargeable upon the author.

IV.—*A Manual of Auscultation and Percussion*, by N. BARTH, *Agréé to the Parisian Medical Faculty*, and M. HENRY ROGER, Physician to the Bureau Central des Hospiteaux. Translated, with additions, by F. G. SMITH, M. D., Phil. Second Edition—1849.

This is a *Resumé* of the second edition of Barth and Roger's work on auscultation and percussion, so well and favorably received by the

profession. In this department of medicine, few authors have acquired more credit for accuracy of statement, and simplicity of style, than the above writers. We think the present edition, by Dr. Smith, is too much abbreviated—containing, as it does, barely an outline of the original work of Messrs. B. and R. As much as we admire conciseness, and hate diffuseness in authors, we can but regret that this work has been reduced to such slender dimensions. As a pocket companion, it may aid the young practitioner in the study of thoracic diseases, and will be found an excellent guide in obscure and difficult cases, when the attendant is pressed for time, and when more voluminous works are not at hand.

Mr. White. Canal street, has the book for sale.

V.—1st. *The Pathology and Treatment of Cholera; with an appendix, containing his latest instructions to planters and heads of families, (remote from medical advice,) in regard to its prevention and cure.* By SAM. A. CARTWRIGHT, M. D., New Orleans, 1849.

2d. *Lecture on Epidemic Cholera, delivered in the Hall of the Philadelphia College of Medicine in May, 1849, (at the request of the Medical Class.)* By THOMAS D. MITCHELL, M. D., Professor, &c., in said College, Philada.

3d. *Cholera: its causes, symptoms and treatment, considered and explained,* by J. P. BATCHELDER, M. D., of New York City, 1849.

From the great variety of treatises, lectures and monographs, written and published on Cholera, the profession and the public expect much light to be shed both upon the pathology and treatment of the disease. But have our just anticipations been realized? Is not the pathology of the disease a sealed book, and the various plans of treatment recommended, but so many systems of empiricism? We appeal to the long list of the millions of dead, who have succumbed to the direful scourge, for a reply to this grave question.

The author of the first essay, Dr. Cartwright, is extensively known throughout the south, as an able writer and medical philosopher. He has written much and well on *political* as well as *medical* subjects, and in both departments he wields a ready and an able pen. In starting new issues or sustaining old ones, he is equally original, and maintains his position with inflexible firmness and apposite illustrations. We always peruse his writings with both pleasure and profit, and we shall long remember with what *gusto*, we caught up and read, during our *pupilage*, some of Dr. Cartwright's early papers on yellow fever. His opinions have great weight with the public on all subjects connected with medicine, and this is easily explained when we reflect that he has been for nearly half a century a practitioner of medicine in the south, where he enjoyed extensive opportunities for studying our pecu-

liar diseases. Although we regard Dr. Cartwright as a *patriarch* in the profession, still we should regret to see *all* the opinions as promulgated in his writings, adopted and put in practice; the same, however, might be said of many other writers, without detracting any thing from the value of their publications.

This pamphlet is presumed to embody the experience and views of Dr. C., on the *pathology* and *treatment* of cholera. On these questions, many of the profession will differ with the author, nevertheless they are doubtless his honest convictions, and as such are entitled to our respectful consideration. We have not space to analyze this essay; indeed, our wish has already been anticipated by one of our correspondents. We hope Dr. Cartwright will continue to give us, from time to time, the fruits of his experience and observation on such medical subjects as he may deem entitled to his consideration. We thank him for his essay.

Professor Mitchell's lecture before the medical class of the Philadelphia College of medicine, is a creditable paper, and contains a brief review of the symptoms and treatment of cholera. He advocates the *eclectic* practice, as the best and the *only* proper one in this disease. At the urgent request of his class, Prof. Mitchell was induced to give his views and experience on the treatment of the prevailing epidemic; this he has done, in his usual plain, straight forward and independent manner. Having reviewed, in a general and rapid manner, the various remedies recommended by writers and practitioners, Prof. M. closes his address with a "*dietetic table*," against which we might urge many objections. Permit us to remark in conclusion, that Professor Mitchell's removal to the north—doubtless advantageous to himself, has vacated a position in the west, which it will be no easy matter to fill. We thank him for his lectures.

The *third* pamphlet, by Dr. Batchelder, is an effort to explain the *modus operandi* of the cause of cholera; to expound the actual condition of the system, when under the influence of the disease; to trace the connection between cause and effect; to furnish a solution of the phenomena of cholera, and, in short, to account for all the symptoms characterizing each stage of the disease. He maintains that all the exciting causes concur in producing a *contraction* of the *capillaries*, whilst at the same time the *pores* opening into the alimentary canal are *relaxed*. This theory is too mechanical for this age of "philosophy in medicine"; and Dr. Batchelder has certainly endeavored to make his conclusions on the subject square with his postulate—with his theory of the disease. How the capillaries should be made to contract and the pores opening into the alimentary canal to relax, under the same morbid cause, is more than we can explain or understand? Dr. Batchelder could have easily told us, (which would have harmonized with his other theories,) that there were *two* morbid agents at work in cholera; one constricting the capillaries, and the other relaxing the pores! Notwithstanding the richness of the author's imagination, he reasons with much force and clearness, particularly on those points which fall within the grasp of the human intellect. The treatment advised is but a repetition of the same routine, which every recent writer on cholera recommends. In truth, it is a well written and tem-

paper, and will compare favourably with any on the same subject, it has been our privilege to read. Dr. Bachelder will please accept our thanks for this mark of his courtesy and attention.

VI.—JARVIS on *Dislocation of the shoulder.*

Dr. Jarvis has invented what he calls his *adjuster*, for reducing *old* dislocations. He thus sums up its advantages over any other method :

1st. It is the only means, up to the present time, by which the *power of the muscles* can be so directed as to become thereby the reducing power.

2d. Because, in consequence of its allowing this great liberty of motion to the limb, it thereby secures to the surgeon greater promise of success, while it is also less severe, and attended with less danger to the patient.

3d. Because the whole operation is completely under the direction, and at all times subject to the control, of the surgeon—he never requiring the aid of more than one assistant, and generally not even that.

4th. It furnishes the surgeon at all times with a means ready of application, and which can be just as conveniently and successfully used in the bed chamber, in a ship, in the field, or indeed in any place where the person injured can be approached. The adjuster is employed upon the *principle of using the power of the muscles of the dislocated limb, for the purpose of reducing the dislocation.* This idea is not new to surgeons; it is plausible.

If we are not in error, Dr. Jarvis attempted, but failed to reduce, with his adjuster, a dislocated hip at the Charity Hospital of this city in 1848. Several efforts were made, but his apparatus gave away and he abandoned the case. We believe it was afterwards reduced by some of our surgeons by the usual method. Dr. Jarvis had better success in our sister city, Mobile, where it appears from his pamphlet, he reduced a dislocated shoulder of some weeks standing. Since writing the above, we have witnessed a trial at the Charity Hospital, with "*Dr. Jarvis' adjuster*," and found that almost any amount of force could be commanded by it, yet the instrument seriously interfered with the necessary efforts required to be made by the surgeon, to bring the bone back into its original bed. The case to which we allude was a young, robust Italian, with a dislocation of the elbow-joint, both bones, backwards, of 70 days standing. The adjuster was thoroughly tried, and failed in part, although the patient was fully under the influence of chloroform. The pullies and ropes were afterwards employed with success.

VII. — *Chemical Analysis, Qualitative and Quantitative.* By HENRY M. NOAD, lecturer on Chemistry at the St. George's Hospital; author of lectures on Electricity, lectures on Chemistry, &c., &c. With numerous additions, by CAMPBELL MORFIT, author of Chemical Manipulations; co-editor of the *Encyclopædia of Chemistry*. With illustrations. Philada., Lindsay and Blakiston, 1849.

Some knowledge of chemistry is now indispensable to every gentleman who claims to be educated; and as chemistry is an *experimental* science, it requires only patience and a little diligence to master all that can be practically useful. As the student of chemical science advances, a new world of matter is constantly expanding to invite investigation and stimulate curiosity. What science is more worthy our attention and study than chemistry? Does it not teach us the composition and habitudes of the various bodies, whether solid, fluid or gaseous, found in the physical world? And is it not, after all our speculations concerning immaterialities, with these material substances that we have to deal? All this knowledge may be readily acquired by studying Noad's *Qualitative and Quantitative Chemistry*; a book we do not hesitate to recommend in the strongest terms, as it is at once concise and perfectly intelligible to ordinary minds. It is handsomely printed and will, we predict, find favor with the scientific world. As a text-book, it will be popular, and we commend it to the attention of the medical student. Mr. White, Canal street, has several copies of the work on hand.

VIII. — *An Essay on Intestinal Auscultation* by CHARLES HOOKER, M. D., Professor of Anatomy and Physiology in Yale College (read before the Connecticut Medical Society); republished from the *Boston Medical and Surgical Journal*, Boston, 1849.

In this lecture, Prof. Hooker has attempted to apply auscultation to the diagnosis of other diseases than those of the Thoracic organs. This effort is commendable, but, we think, will never lead to much practical good. Percussion has long been a useful means of ascertaining the contents of the intestinal canal. In peritonitis, in tympanitis, and other abdominal affections, percussion becomes an important auxiliary to our other means of diagnosis; but we do not see how auscultation, the application of the ear, either mediately or immediately, can shed much additional light on this subject. We can but think a learned professor might find some better occupation than chasing, per chance, a cubic inch of *sulphureted hydrogen gas* through a tube measuring more than *thirty feet* in length! *Quien sabe?*

IX.—*Human Anatomy*, by JONES QUAIN, M. D. Edited by RICHARD QUAIN, F. R. S., and WILLIAM SHARPEY, M. D., F. R. S., Professor of Anatomy and Physiology, in University College, London. First American, from the fifth London, edition, edited by JOSEPH LEIDY, M. D. In two volumes, with over five hundred illustrations. Philadelphia, LEA & BLANCHARD—1849.

Although but little new can be expected from anatomy, at its present advanced state, yet much light may be shed upon the ultimate structure of particular parts by microscopy, and organic chemistry. New diagrams, plates and other modes of illustrating the subject, are almost daily presented to the profession; all of which serve to simplify the subject, and bring it more within the grasp of the student's mind. These two volumes, by the Messrs. Quains and Sharpey, are splendidly illustrated, and perhaps the most finished and elegant work ever issued in this country on "Human Anatomy." As anatomists, no country can boast of any superior to the above named, and the American publishers are entitled to a premium for the neat typographical execution of these two volumes. Mr. Street has the work for sale.

X.—1. *Anæsthesia, or the employment of Chloroform and Ether in Surgery, Midwifery, etc.* By J. Y. SIMPSON, M. D., F. R. S. E., Professor of Midwifery in Edinburgh University, etc., etc., etc. Phil. LINSAY & BLAKISTON—1849.

2. *Effects of Chloroform and of strong choleric Ether, as narcotic agents.* By JOHN C. WARREN, M. D., etc., Boston. WILLIAM D. TICKNER & Co.—1849.

To Professor Simpson, of Edinburg, is awarded the credit of having been the first to use chloroform in midwifery practice. After the anæsthetic virtues of ether or letheon were discovered and made public by Drs. Jackson and Morton of Boston, Dr. Simpson began to experiment with a variety of substances, and finally decided in favor of chloroform as the most efficacious and least disagreeable of all the articles heretofore tested. Soubeiran first discovered chloroform in 1831, and Liebig in 1832, and it was not until 1835, that Dumas made known its chemical composition. In chemistry, chloroform is the *perchloride of formyle*, and is a colorless fluid, of an agreeable odor, and pleasant taste. The object of Dr. S. in publishing this volume, was to furnish the public a large mass of evidence in favor of chloroform in midwifery, and in surgery, and to urge its adoption by all who desire to alleviate the throes of parturition. Much of this evidence has been laid before the profession by the author, either in the form of lectures, monographs, or letters addressed to distinguished accoucheurs and surgeons, and published

in the medical journals. As chloroform is now almost daily resorted to, in every part of our country, and its efficacy and safety are generally conceded, we shall not occupy the pages of the Journal with any of the arguments, adduced by Professor S., in favor of its claims to our attention. For a man of Dr. Simpson's good sense and high standing to stoop to answer and refute the *religious objections urged against the use of anæsthetic agents in midwifery*, is a matter of some surprise to us, and we think unworthy himself and the profession of which he is a bright and shining light. In conclusion, we commend the work to all who feel interested in tracing the triumphant progress of one of the greatest discoveries of modern times.

Dr. Warren, of Boston, author of the second paper at the head of this notice, has, with much pains and care, collected and analyzed all the fatal cases, said to be produced by the inhalation of chloroform, during the last twelve months. He has mentioned ten or twelve, wherein death took place, either in the act or soon after the inhalation. The names of the persons, date, manner of death, disease, time of inhalation, lapse of time till death, quantity consumed, posture, symptoms, morbid appearances, etc., etc., are all minutely recorded and commented on in this pamphlet. Dr. Warren, therefore, regards chloroform as a dangerous agent, and thinks it should be used with some caution. We consider these fatal cases rather accidental than consequential, and should be very sorry to learn, that a few exceptional cases of this kind should deter surgeons from the use of a most valuable anæsthetic agent. We have witnessed its use on several occasions, and can testify, not only to its virtues, but likewise its innocuous nature in surgical and obstetrical practice. A number of females have been recently delivered at the Charity Hospital, of this city, under the influence of chloroform, and no bad effects, either to the mother or child, have followed.

Part Third.

EXCERPTA.

I.—The following *retrospect on Physiological and Pathological Chemistry*, from the *Dublin Quarterly Journal of Medical Science*, 1849, embraces so much valuable information that we are induced to lay a large portion of it before the readers of the Journal. Much reading and research were required to furnish this abstract, and we hope none will fail to read it because of its length, or because it does not bear directly on practical matters. It will be found an able and highly interesting paper, and will suggest to the reflecting student many new and original ideas, which he may apply to practical medicine.

[EDITOR.]

On Physiological and Pathological Chemistry.

PHYSIOLOGICAL PHYSICS.—*Endosmose and Exosmose*.—Matteucci* has published another work, in which he repeats the general views already put forward in his previous works, and also added a great many new views and experiments, especially on endosmose and exosmose, a few of which I shall notice here, as they are probably not generally known to most of my readers.

If a number of tubes with fine bores be immersed in a fluid, it will rise in them exactly proportional to the size of the bore; the finer the bore the higher the fluid will rise. This action is called capillary attraction, and upon it depend a great variety of phenomena, not only in organic nature, but also in vegetable and animal bodies, such, for example, as the effects known as imbibition, exosmose, and endosmose. In most animal and vegetable organs, the structure resembles in effect a bundle of such tubes from the small space which exist between the parts. As the phenomena depend more on the nature and density of the fluids than on the substance of the tube, different fluids will ascend in the same tube, under otherwise similar circumstances, to an unequal height. If the blood happens to be altered in disease, so as to be rendered thicker or thinner by an increase or diminution of the fibrine or blood globules, or thinner by bleeding, or if it is modified by medicines, its capillary action will be changed,—water, oil, spirits, soup, &c., will disappear from the stomach quicker or slower than in a healthy natural state. The absorption of a liquid will take place more rapidly the higher its temperature is. This absorption or imbibition is not influenced by the pressure or by the moisture of the atmosphere; it produces heat and elec-

* *Leçons sur les Phénomènes Physiques des Corps Vivants*. Paris, 1846.

tricity; and as it plays a very important part in the capillary motion of the blood, it is probable that it has some influence on the development of the chemical activity of organic bodies. The cause of capillarity is the opposition of heterogeneous and homogeneous attraction between a fluid and solid tube. Endosmose and exosmose, on the other hand, depend on the mutual attraction of two fluids, one of which is more capable than the other of freely wetting a porous solid which forms part of the combination. Thus, if we dip a piece of bladder or other animal membrane into water it will be wetted and completely soaked with the liquid, but if we dip it into spirit it will not be wetted. If we take a funnel to the stem of which a long tube is attached, and cover the mouth with a piece of bladder or other animal membrane, and then fill the funnels with spirits of wine, and place it with the bladder downwards in water, the water will pass into the funnel and mix with the spirit, and a column of liquid will be forced up the tube. The moving power in this case is the force of adhesion between the water and the bladder; the water ascends through the pores of the bladder as it would ascend through any other tubes, and comes in contact with the spirit, with which it unites and is at once removed, and this process goes on for a certain time; the height of the column of liquid in the tube being in some degree an index of the power called into action. Other fluids having a strong tendency to unite with water may be substituted with the same effect, and even solutions of different solid substances, or in fact any two liquids of different densities. In case both the fluids thus placed in juxtaposition are capable of wetting the membrane or other porous diaphragm interposed, there will be a flowing in as well as out, and hence the names which Dutrochet first gave the phenomena, of exosmose or flowing out, and endosmose or flowing in. Gases are also capable of exhibiting these phenomena, with the exception that in this case there is no limitation, as they are capable of unlimited diffusion through each other's mass. Matteucci applies this development of force to the explanation of a great variety of phenomena; among others he mentions the experiments of Poisseuille's on the purgative and astringent action of medicines. He observed in drinking Seidlitz water that an endosmose of the serum of the blood took place with these waters, and with glauber salts, sea water, and other saline solutions, through the animal tissues. This is exactly what occurs in all cases of purging produced by such salts, the endosmose of the serum and the solution of the salts in the intestines. In such cases a quantity of the serum is carried off by the bowels, and the rapidity of the action is in proportion to the strength of the solution.

Muriate of morphia added to saline solutions diminishes the endosmose of the serum with saline solutions in the intestines; hence its action in diarrhœa.

Absorption is not merely an imbibition of a fluid by the tissues with which it is in contact, but a transfer of the fluid to the blood vessels, as in the experiment with the spirit mentioned above. It is in fact a true case of endosmose and exosmose, and will be facilitated by the great number of vessels which may exist in the part; hence the lungs are better adapted for it than the cellular tissues, and the skin least; hence, also, the rapid absorption of ether and chloroform through the lungs. Absorption in general depends on the mass of the fluid already present in the body,—the more present the less is the absorption; it also changes with the temperature,—warm drinks are absorbed more rapidly than cold. The rapidity with which the fluid moves also facilitates it.

Exhalation is the opposite of absorption, and like it depends on the permeability of the vessels and on the mass of the liquid; is stronger in dry than in moist atmospheres, and frequently diminishes or increases tenfold. Imbibition, capillarity, and even molecular attraction, may overcome chemical affinity, and hence the organs of secretion cannot be looked upon as simple filtering apparatuses. Matteucci treats digestion and respiration in a similar manner. He also treats of the similarity and points of difference between electricity and the power of

the nerves, and upon several other points, upon which he, however, has communicated nothing new. The importance, however, of the general subject of endosmose renders it necessary to give a general sketch of the mode in which he applies it to explain phenomena.

Julius Vogel* has also published a very able memoir on the subject, in which, after having given a general description of the phenomena, he proceeds to apply it to the explanation of various animal functions, such as digestion, the secretion of sweat, of tears, of mucus, of milk, of saliva, of bile, and of urine. The length of the memoir, and the impossibility of condensing it within the limits which I could assign to a single essay, prevents me from giving an analysis of its contents, and I must consequently refer the reader to the original memoir, which has been fortunately translated into English and published by the Cavendish Society.

Magnetism.—Weber's† experiments on the action of the magneto-electrical current on the vessels and on the circulation of the blood show, that by the action of such a current the arteries of the extremities are diminished one-third or one-half their diameter, and that by its continued action they may contract to one-fifth or one-sixth, and cause the circulation to entirely cease. The contractions take place only after some time, but it continues even after the stream may cease. When a weak current is employed the effects soon cease, but when a very strong one is used the artery loses its power of contraction, and an aneurism results. No certain results were obtained by its action on capillaries of one-ninety-sixth of a line in diameter, and it only produced very slight contractions in the veins. The action of the stream produced coagulation of the blood and cessation of the circulation most readily in the capillaries.

Action of Caloric.—Weber (E. H.)‡ found that cold diminishes the ciliary motion, and that heat increases it. He also found that a heat of about 124 deg. F., and a cold of 32 deg. F., blunted the nerves of the tongue for some time, so as to destroy the sensation of taste; the organs of taste lose at the same time the power of distinguishing between heat and cold.

Electrical Endosmose.—Namias|| states that when a positive current of electricity is passed through a liquid, it produces a corresponding current in the liquid.

Respiration.—Lassigne¶ gives us the results of his experiments on the carbonic acid contained in the atmosphere of confined buildings, that, owing to the law of the diffusion of gases, the carbonic acid does not exist in large quantities near the floor, but is pretty equally diffused through the whole mass, and that, consequently, ventilation must have reference to the whole mass of air in a room, and not to a particular part.

Letellier** has found that all animals expire, at 0 deg. F., double as much carbonic acid as at 30 deg.; and between these extremes it diminishes as the temperature increases.

Becker†† has published some observations upon Scharling's experiments upon respiration, in which he impugns Liebig's opinion that oxygen combines more readily with alcohol when it exists in the blood, than it does with decomposed tissues; and comes to the general conclusion that the use of alcohol retards the

* Die Geseze der Mischung der Flusigkeiten und ihr Eindringen in permeable Substanzen. Gottingen, 1846; also translated in the Memoirs of the Cavendish Society.

† Wirkung d. Magnetelectrischen Stromes auf die Blutgefäße, Muller's Archiv. Heft. 2 and 3.

‡ Froriep's Notiz., 2 Reihe, Bd. 46, p. 69.

§ Muller, Archiv., Heft 4.

|| Froriep's Notiz., Bd. 40, p. 263.

¶ Bulletin de l'Académie de Médecine, t. xi.; also Comp. rend., t. xxiii. p. 185.

** Froriep's Notiz., vol. xxxviii, p. 154.

†† Heller's Archiv., Heft. 5, p. 406.

formation of living tissues, and considerably diminishes the consumption of oxygen, and consequently of carbon. He also states that a healthy person expires as carbonic acid, at least one-third more carbon than Liebig states; and this he accounts for by Liebig not calculating, in his tables, the amount of beer and spirits consumed by the persons on whom he experimented. He also considers that the amount of nitrogen which is daily given off is much greater than is usually supposed. In conclusion, he states that the smoking of tobacco diminishes the quantity of blood conveyed to the lungs, and at the same time induces the same conditions in the blood as the ordinary narcotics, and consequently retards the metamorphosis of the tissues, a fact which he quotes against Scharling, Liebig and Vierordt's results, as they did not take this point into account.

Incubation.—Gobley* has made the interesting discovery that the yolk of the egg contains phospho-glyceric acid, an acid already obtained by Pelouze from the action of phosphoric acid on glycerine. He also obtained the albuminous substance termed by Dumas and Cahours, vitalline. Among the other substances which he obtained were margaric and oleic acids, which, as well as the phospho-glyceric acid, were combined with *ammonia*, margarine, oleine, cholestearine, chloride of ammonium, traces of acetic acid and iron. To these, Kodweis†, who worked upon the same subject some years ago, adds stearic acid.

Sugar of Milk in incubated Eggs.—Winckler‡ has detected sugar of milk in incubated eggs.

Seraf. Cappezzuoli§ has instituted some experiments to determine the quantity and quality of the substances assimilated during the development of the egg, and immediately after the chick is disengaged from the shell. His results are as follows:

1. During the incubation and the first few days of the existence of the chick, after leaving the shell, the quantity of fat does not diminish as rapidly as the albuminous substances.

2. During the incubation, the total diminution is very small, but becomes remarkable if the chick is left without food for some time after its expulsion from the shell.

3. Chickens fed on starch only, exhibit a diminution of their fat, and even when fed in the ordinary manner, a considerable diminution of fat and of albuminous substance was perceptible, from which it may be concluded that the animal consumes more in the first days of its existence than it assimilates.

Baudrimont and Martin Saint-Angel|| have published a very important and complete investigation of the chemical appearances and changes which the egg presents during its incubation, from which the following results may be deduced:

1. Eggs diminish in weight during their incubation, as was already well known.

2. Atmospheric air containing a certain amount of moisture, and a moderate temperature, are absolutely necessary.

3. They absorb oxygen, and at the same time evolve water, carbonic acid, nitrogen, and some sulphur compound, not further known.

4. The loss of weight sustained by the eggs is always smaller than the sum of the water, carbonic acid, and nitrogen expired; it is even smaller when the carbonic acid is reckoned as carbon, which shows that the oxygen of this acid is derived from the air.

* Recherches sur le Jaune d'Oeuf; Jour. de Pharm. Annal. de Chim., &c.

† Liebig's Annal., vol. xxxix, p. 261.

‡ Heller's Archiv.; and Chem. Gaz., No. 90. p. 280.

§ Polli's Annali di Chimica, December, 1846.

|| Recherches sur les Phenomenes Chimiques de l'Evolution embryonnaire des Oiseaux et des Batraciens; Annal. de Chim. et de Phys., October and November, 1847.

5. The oxygen necessary during incubation is partially absorbed and partially employed in the formation of water and carbonic acid.

6. The volume of absorbed oxygen is exactly equal to that contained in the evolved carbonic acid; and the volume of evolved nitrogen is about one-half of the latter, or about a fourth part of the oxygen absorbed.

7. The fatty bodies are diminished in the egg during the time of incubation, and at the same time the nitrogenous substances are altered in constitution, as is easily seen by the evolution of nitrogen.

8. The absorbed oxygen and the expired carbon and nitrogen stand in definite proportions to one another, and can be expressed by the following formula:— $8O - [-2C -]N$, which gives $4O - [-2CO^2 -]N$. If the oxygen be partially employed in the formation of water, we would have $4HO - [-CO^2 -]N$, of which $H_4 C_2 N$ would have been derived from the egg.

9. The incubated egg is richer in oxygen than the fresh.

10. The inorganic elements can change considerably in their nature and relative proportions, as well as in physical characters.

11. The phenomena attending the development of the embryo exhibit a perfect sample of nutrition, in which the nutriment is not assimilated until it has been exposed to the action of oxygen.

Proteine, Albumen, &c.—From the great number of memoirs published on these bodies, and from the important discussions to which they have given rise, particularly between Mulder and Liebig, I find it would be at present impossible to do justice to the subject, and shall, therefore, defer until the next number any notice of them, when I shall have more space at my command.

Blood.—Dumas* investigations were principally directed toward ascertaining the relation of the blood globules to solution of salts, and to the method of obtaining them pure, and also to their composition.

His process for estimating the blood globules is founded on the fact that they are not decomposed by a solution of sulphate of soda when exposed to a full current of air, so as to maintain them of a full arterial color. He first deprives the blood of fibrine in the usual manner, mixes it with three or four times its volume of a saturated solution of sulphate of soda, and throws the whole on a filter, care being taken that as thin a layer of blood globules as possible lies on the filter, otherwise they will not be fully oxidized, and will assume a purple color, and will then dissolve in the fluid. During the washing of the globules, he causes, by a proper apparatus, a stream of air to pass over them through a fine tube reaching nearly to the bottom of the filter, the fluid being at the same time supplied as fast as it flows through it. In this way, in a few hours, five to six grammes of pure blood globules may be obtained.

He found that all alkaline salts possessed the same properties as the glauber salts, such as phosphate of soda, &c., as also salts of organic acids. On the other hand, chlorides of sodium and potassium appeared to act differently, for if blood be mixed with these solutions and then exposed to the action of oxygen, it will remain of a dark violet. Sal-ammoniac acts in a similar manner. Dumas remarks that there is probably some connexion between this action and the commonly received supposition that scurvy is produced by the use salted of meat, and also on the injurious action of sal-ammoniac on the blood.

It is worthy of remark, that those substances which leave the blood the power of becoming arterialized by oxygen, are exactly those which do not injure the blood globules, and by the use of which a colorless serum can be obtained.

Dumas has come to the general conclusion that the coloring matter of the blood has the power of assuming the peculiar arterial tint only so long as it exists in the form of globules, and that it loses this property when the globules are dissolved or changed, and that the coloring matter itself undergoes at the same time some alteration.

* Recherches sur le Sang, Compt. rend., t. xxii, p. 900..

Dumas made comparative experiments with different portions of the same blood, from which he draws the following conclusions :

1. That the salts of the complex organic acids, such as tartaric and citric, &c., have less influence in preserving the integrity of the blood globules than salts with mineral acids.

2. That the salts with soda as a base preserve them better than those with potash or ammonia. It thus appears that between the integrity of the blood globules, the arterial condition of the blood, the phenomena of respiration, and the nature and the quantity of the salts of the blood, there is an important connection.

Marchand* has examined the blood in reference to the statement of Dumas, that the blood globules are capable of a separate respirative function outside the body, and has come to the conclusion that that statement is incorrect.

Dr. E. Harless† has made some very beautiful experiments on the action of gases on the blood globules, from which it results that the blood undergoes a series of changes under their influence analogous to those produced by salts. He exposed a layer of blood globules under the microscope to the action of different gases, by means of a peculiar contrivance. The constant result obtained was, that when the diameter of the blood globules of the frog, from treatment with oxygen, had become 0.011, and the width 0.007, by the action of CO_2 , the first was increased to 0.014, and the latter to 0.009. Oxygen also made the contours dark and sharp, and the form a long oval with flattened poles, the membrane was granulated; carbonic acid made the contours round or oval, the granulations disappeared: resting on their edges, they exhibited a considerable projecting convexity, which gradually disappeared toward the poles. Finally, the structure of the membrane was rendered perfectly clear by CO_2 , and by long continued exposure to it the sac completely dissolved. Harless considers these changes to be the result of disturbances in the endosmotic and exosmotic currents.

From these facts, it would appear that the cause of the change of the blood was principally physical, was in fact produced by the absorption of the gas by the blood, and the change in the form of the globules, an opinion which Marchand has always come to.

Bonnet‡ has re-discovered a fact long since observed by J. Muller, that if one-half part of blood be directly received from a vein into a solution consisting of one part of sugar-syrup, and three of water, it may be filtered without coagulating, and that in some time the filtered liquid deposits a gelatinous coagulum of fibrine, similar to, but not so consistent, as that of blood in inflammation. Before this coagulation took place, he tried the effect of various substances on the mixture with the following results :

1. Weak solutions of pure or carbonated alkalies; solutions of different neutral salts, as saltpetre, common salt, iodide of potassium, sulphate of soda, &c.; decoctions of vegetable substances, containing much tannin, &c.; very weak solutions of acid animal fluids, such as decomposed ammoniacal pus, urine, gastric juice, sour milk, &c.; do not allow the coagulation to take place.

2. Neutral animal fluids, such as fresh milk, solutions of very violent vegetable poisons, as acetate of morphia, belladonna, and even solutions of arsenious acid, had no influence on the coagulation of the fibrine or of the blood. He then divides those substances into four classes;

1. Such as alter neither the blood globules nor the fibrine.

2. Such as act on both, namely, dissolve the globules, and prevent the coagulation of the fibrine.

* Erdmann's and Marchand's Journal, Bd. 38, p. 273.

† Inaugural abhandlung uber den Einfluss der Gase auf die Form der Blut Korperchen von Rana Temporaria. Erlangen.

‡ Letre a M. Dumas sur le Sang; Annal de Chim. et de Phys., t. xxi, p. 186.

3. Such as dissolve the globules, but have no action on the fibrine.

4. Such as retain the fibrine in solution, but do not destroy the globules.

He considers that a great many conclusions may be drawn from these results, as to the mode of action of these bodies as therapeutical agents.

Poggiale* has published the results of a number of analyses of the blood of different animals, from which nothing new can be deduced. He has also published an analysis of the blood of a new-born infant, from which he concludes that the blood of the placenta is similar in composition to the blood of the fœtus; that the proportion of solid matter in the fœtal blood is greater than that in the blood of adults; that the blood of a new-born infant is rich in globules and poor in fibrine; that the quantity of albumen and fat is the same as in adult blood; that the iron is in greater proportion.

On the existence of Carbonates in the Blood.—Liebig†, from some well conducted experiments, has come to the same conclusion as Enderlin, that there are no carbonates in the blood of oxen. He did not find either sugar or urea.

Marchand‡ has come to the same conclusion as Scherer, that the opinion of Enderlin as to the existence of tribasic phosphate of soda ($3\text{NaO} \cdot \text{P O}_5$) in the blood is incorrect. With reference to the conclusion of Liebig quoted above, he states that he has repeated his experiments with the same result, but does not, however, come to the same conclusion. He accounts for no evolution of CO_2 having been observed by Liebig's experiments, by supposing the greater part of the gas set free on saturating a small quantity of a carbonate dissolved in a large quantity of water to have been absorbed, and consequently no effervescence produced, and in proof of this brings forward several conclusive experiments, and among others shows that a fluid containing 2Na O , $\text{H O} \cdot \text{P O}_5$ in solution, when saturated with carbonic acid, scarcely lost any even under an air-pump. Marchand, therefore, adheres to his former opinion, that the blood contains carbonates, an opinion that is fully confirmed, at least in the case of the blood of the Herbivora, by the beautiful and conclusive experiments of Lehmann§. Heinrich Rose|| appears also to consider that carbonates may exist in the blood.

Urea in Normal Blood.—Dr. Strahl¶ states that he has been able to detect urea in normal blood.

PATHOLOGICAL CHEMISTRY OF THE BLOOD.—Dujardin and Didiot, Surgeons to the Hospital of Val de Grace at Paris, have applied Dumas' method of examining the blood globules to diseased cases. In thirteen slight cases of typhus, the blood globules remained on the filter, or only a small portion went through. In seven severe cases, notwithstanding a strong current of air, they went through here and there, or in the form of red streaks; and this appearance of dissolution in the blood globules appeared to be in direct proportion to the violence of the disease. The globules behaved themselves similarly in spontaneous Erysipelas, phthisis, many organic diseases of the heart, and typhoid inflammation of the lungs; while in pleurisy, simple pneumonia, acute catarrh, acute rheumatism, the serum passed through clear and without any globules.

Plethora, Anæmia, &c.—Becquerel and Rodier** found the chemical constitution of the blood in plethora almost normal. In simple chlorosis they also found that the composition of the serum was normal, and that the change which

* *Recherches Chimique sur le Sang*, Compt. rend., t. xxv, p. 110.

† *Annal. der Chem. und Pharm.*, Bd. 57, p. 126.

‡ *Journal fur Prak. Chem.*, Bd. 37, p. 321.

§ *Journal fur Prak. Chem.*, Bd. 40, p. 133.

|| *Chemical Gazette*.

¶ *Preus. Vereinzeitg*, No. 47.

** *Gaz. Med.*; the whole memoir is contained in Nos. 26, 27, 32, 33.

takes place in the blood of patients laboring under this disease is confined to the blood globules. On the other hand, in symptomatic anæmia the albumen of the serum is considerably diminished.

Sir Henry Marsh* has given, in his admirable paper on chlorosis, some chemical observations on the blood in that disease, from analyses by Dr. Hill, which tend to show that the disease does not consist in a diminished quantity of blood, but in an altered quality. In chlorosis, in fact, the blood undergoes a very remarkable change: its specific gravity is lowered, the clot is small and firm; the serum bears too large a proportion to the crassamentum; water is in excess; the red corpuscles are far below the healthy standard in quantity; their appearance, however, under the microscope, is natural; and the fibrine, in the majority of cases, is normal.

In hæmorrhagic diseases, on the other hand, the specific gravity is seldom much below, and sometimes even exceeds, the healthy standard. The clot bears too large a proportion to the serum; the fibrine is less than in healthy blood, or rather its proportion to the globules is less than in healthy blood; the quantity of red globules is either absolutely increased, or their proportion to the fibrine is larger than in normal blood. The quantity of solid constituents frequently exceeds that of the normal fluid; a buffy coat is scarcely ever observed except where fever or inflammation is present.

Inflammation.—Zimmermann† makes the important observation, that in pneumonia, if the patient be bled on the first day of the disease, and that no increase of the fibrine is observed, its increase afterwards cannot be assigned as the cause of the disease.

Intermittent Fever, Dysentery, Typhus.—Leonard and Foley‡ have published a most excellent memoir under the title given below, on the composition of the blood in different diseases. They adopted in their analyses the process of Andral and Gavarret, and their results can, therefore, be compared. We can only give a few extracts, showing the results at which they arrived with reference to each of the constituents.

Fibrine.—In febris intermit. and in remit. simplex, the mean quantity of fibrine was 2·5. Andral and Gavarret found, as a mean, 3·4. The quantity appears to diminish in repeated attacks of fever, but yet not to fall below the minimum normal state. During the change of the intermitting type into the remittent, no constant change in the quantity could be observed. In a complication of intermitting fever with pneumonia, the quantity of the fibrine in the latter was increased. In violent cases the fibrine did not appear to be changed, and consequently it is not much influenced, except in a few cases, by inflammation. The frequent occurrence of hypertrophy of the spleen does not always depend, as Andral thought, on the diminution of the fibrine. The use of sulphate of quinine, to the amount of sixteen grains daily, for several days, had no influence on the quality of fibrine.

Blood Globules.—They took 152 as the physiological maximum, according to Becquerel and Rodier, and as physiological minimum, 110, according to Andral and Gavarret. As a mean of all cases (62) they found 111; as a mean of recent cases, 113·2; as a mean of relapses, 108·8. It results from this that, with the duration of the disease, the blood globules diminish.

Solid Constituents of the Serum.—In thirty-two cases out of sixty-two, these were within the physiological maximum of 91 (Andral and Gavarret), and the physiological minimum of 68 (Becquerel and Rodier); in ten cases it exceeded, and in twenty it sunk below, the minimum.

* Dublin Quarterly Journal, No. IV, November, 1847.

† Über die Analyse des Blutes,

‡ Recherches sur l'Etat du sang dans les maladies endémiques de l'Algérie; Mem. de Med. Chirurg., &c., Militaires, t. lx, pp. 135 to 209.

They also investigated each constituent of the serum. The organic constituents exceeded the mean (72 A. and G.) in eighteen cases, and fell below it in thirty-three. The inorganic exceeded the mean (8) eighteen times, and fell below thirty-two times. In the complicated cases, the diminution was almost constant. In intermittent fever, the albumen of the blood was also in general diminished. In many of these cases the urine contained no albumen, which is contrary to the opinion of Andral, that a diminution of the albumen only takes place in those cases where it is carried off by the kidneys.

The constituents of the serum soluble in boiling water (extractive matter, soluble salts,) were always increased. The authors believe, from these facts, 1st, that the fibrine of the blood does not increase at the cost of the albumen, and *vice versa*; 2d, that the blood globules do not increase at the cost of the albumen; 3d, that the quantity of free salts in the blood, namely, the alkaline salts and free alkalies, do not appear to have any influence on the quantity of the fibrine and albumen.

Water in the Blood.—Their researches on this point led to the following results:—In the cases where the quantity is increased, the globules are generally diminished. The solid constituents of the serum are also either diminished, or their quantity is normal.

When the water is normal, the blood globules are also generally so, and also the solid constituents of the serum, although there are greater proportional variations in the latter. Diminution of the water takes place very seldom, and always occurs with the increase of the globules, while, at the same time, the solid constituents of the serum are likewise either increased or remain normal.

The general results to be drawn from these investigations may be summed as follows:—The blood during intermittent fever undergoes some change, from which a series of secondary appearances, such as anæmia, dropsical and scorbutic attacks, are easily explained. The diminution of the globules (probably also a diminution of their power of absorbing oxygen) explains the prostration of the entire constitution and the occasional disturbances of the circulation. The diminution of the fibrine explains the ecchymosis in the skin and in the cellular tissues, the bleeding from the nose and the gums, the gangrene of the mouth, which sometimes occurs, and the pains in the limbs. The diminution of the albumen explains the hydropsical swellings, anasarca, ascites, and probably also the watery diarrhœa, which always closes the last scenes of persons weakened by fever. These changes of the blood are not peculiar to intermittent fever, as they also occur in many other diseases.

Dysentery.—They examined the blood in six cases of this disease. They were principally those in which inflammatory symptoms predominated with violent fever, heat, headache, &c. In all the bleeding was serviceable. The fibrine was in general increased, the globules had a tendency to increase; the solid constituents of the serum were never increased, being generally normal; the organic constituents had a tendency to diminish; the inorganic were normal; the albumen, in three cases in which it was determined, was diminished. The constituents soluble in boiling water, in the four cases in which they were determined, were considerably increased. The constituents soluble in boiling alcohol, as in the fever cases, gave no definite results. The water was four times increased and twice normal.

Typhus.—Becquerel and Rodier, from their investigations of the serum of blood in typhus, come to the following conclusions:—at first it differs very little from the normal, but during the course of the disease its density diminishes, both from the influence of the disease and diet, and the quantity of water increases and the albumen diminishes. In violent cases of typhus the blood globules lose the property of absorbing oxygen.

Puerperal Fever.—Hersent* draws the following conclusions from his researches:—

* *Recherches sur la Composition du Sang dans les Fievres Puerperales*; Gaz. Med. de Paris, No. 51, p. 991.

1. In cases of violent puerperal fever the quantity of water is very much increased, and the blood globules and albumen diminished.
2. In proportion as the changes are slight, so is the disease.
3. The fibrine is generally not diminished; nay, even sometimes increased.
4. There was some cases, where the fibrine having been diminished, the blood showed symptoms of dissolution.
5. Probably the change of the blood precedes the appearance of the disease, but it cannot be considered as its cause, although it increases the violence of the disease.

Becquerel and Rodier have confirmed, by new experiments, the fact that during pregnancy the blood globules diminish, and the fibrine and albumen slightly increase, but at the same time the specific gravity of the serum diminishes. This latter fact they imagine may give rise to many forms of dropsy, which arise toward the end of pregnancy; but, according to Vogel, the results are caused principally by mechanical disturbances of the circulation.

Scorbutus.—Becquerel and Rodier* conclude from their researches, 1st, that the old and generally received opinion that the blood in scorbutus undergoes a species of dissolution, is not correct, nor is the opinion of Majendie and of Andral and Gavarret, that the alkaline salts are increased, borne out; 2d, the blood globules and soluble albumen were sensibly diminished, which Vogel accounts for by the loss of appetite; 3d, the fibrine, contrary to the generally received opinion, was not diminished, but was even, in some cases, increased, and did not differ in its properties from that of healthy blood; 4th, the only positive change observed was a very considerable diminution of the specific gravity, which is much less than it ought to be from the quantity of solid matter contained in the blood. This curious fact cannot, as yet, be accounted for.

Dr. Neligan has communicated, in his paper on sea scurvy,† two analyses of the blood, made by Dr. Aldridge, in this disease, which has reference principally to the inorganic constituents. The most remarkable difference is observed, in these analyses, in the total amount of inorganic matter, which, in one of the cases, was nearly double the quantity contained in normal blood. There was a marked difference between the amount of phosphoric acid in the two cases, although that which contained the least was still by no means below the normal standard. The potash and sulphuric acid were abundant, notwithstanding, as Aldridge remarks, that the food to the use of which scorbutus is usually attributed is deficient in them. The total amount of solid matter contained in both specimens was remarkable, and especially in one, which contained in 1000 parts only 684 of water, and 316 of solid matter!! It is much to be regretted that the proportion of fibrine, albumen, and blood globules, was not ascertained in this remarkable case. It is probable, however, that the blood globules were in excess, which is not in accordance with the experiments of Becquerel and Rodier. Majendie, Andral, and Gavarret's opinion, that the alkaline salts are increased, is fully borne out, particularly in the case in which the large amount of solid matter was observed.

Carcinoma.—Heller‡ has arrived at the following conclusions from his investigations on this disease:—

1. The opinion of Engel, that this disease belongs to the class of *albuminous*, that is, to an increase of the albumen in the blood, is disproved by these investigations. For the blood in this disease, on the contrary, as in all others in which there is a tendency to new formations,—inflammation, rheumatism, tubercle (and probably also secondary syphilis),—is richer in fibrine.

2. In the higher grades, and in long-continued cases of cancer, the blood-globules decrease, and the water increases.

* De la Composition du Sang dans le Scorbut; Gaz. Med. de Paris, No. 26.

† Dublin Quarterly Journal, No. viii., November, 1847.

‡ Pathologische Chemie der Krebskrankheit; Heller's Archives für Chemie und Mikroskopie, Heft, 1, p. 28.

Heller also continually found in the blood of patients suffering from cancer, peculiar shining, golden scales under the microscope, which, of course, he was unable, from want of material, to determine the nature of, but which Vogel considers to be cholestearine.

Mania.—Heinrich's* results may be stated as follows:—In all investigated cases of recent mania, the blood did not exhibit any great variation from the normal composition. The blood of a patient laboring under this disease corresponds to that in a mild case of hydraemia. Mania, therefore, causes no peculiar condition of the blood, but is rather dependent on the existing condition of the body. In the seven cases examined, the fibrine was not increased, and consequently there was no acute inflammation.

Diseases of the Spine.—Becquerel and Rodier have analyzed the blood of twelve patients laboring under diseases of the spine, with the following results:—

When the spinal disease is accompanied by paraplegia, the blood globules will be generally found to be diminished, and that in proportion as the patient is debilitated. The fibrine is at one time normal, at another increased; this latter sometimes from intervening inflammation, but also without. The serum has, in general, a high specific gravity, and is always rich in solid constituents, as well in albumen as in extractive matter and fat.

Bright's Disease.—Becquerel and Rodier have published a great number of analyses of blood in this disease, which confirm their former results, namely, that in this disease, in general, the globules diminish whilst the fibrine remains normal, except in inflammatory complications, where it appears to be increased, whilst the albumen is considerably diminished.

Pasquale la Cava† obtained 0.684 parts of pure urea from 1000 parts of the blood of a patient laboring under this disease.

Diabetes mellitus.—A great number of memoirs have appeared on this disease, of which we can only notice a very few, from our want of space.

It is well known that starch may be converted into dextrine and sugar by the influence of certain animal secretions, such as the saliva, pancreatic juice, &c.

Majendie‡ has found that a great number of other animal substances possessed the same property, and, among others, the blood, not only in the body but outside it. This fact he has ascertained by a number of beautiful experiments, which want of space alone prevents our giving here. The natural consequence of these results is, that we must naturally seek for the cause of diabetes in the blood or in the process by which the blood is formed, that is, in the act of digestion; and on this basis two theories have been formed which have gained considerable reputation, the one by Bouchardat and the other by Mialhe.

Bouchardat's§ theory is as follows:—The sugar of diabetes is principally, if not entirely, formed from starch and bodies belonging to the same chemical series. Diabetic patients digest this starch differently from healthy persons. Their stomachs contain a considerable quantity of a nitrogenous body in a state of transformation, resembling that which vegetable albumen, &c., undergoes when it forms diastase. Indeed, Bouchardat thinks from his experiments that this substance is diastase. By this, and by the large quantity of water which they drink, owing to continued thirst, the starch is rapidly converted into grape-sugar, which is as rapidly taken into the blood. A quantity of grape sugar thus gets into the blood, which the lungs cannot burn off, and the excess must of course pass off by the kidneys. By this rapid solution and absorption of the food, and its expulsion again, unchanged, through the kidneys, fresh food will

* Heller's Archives, Heft 5.

† Annali di Chimica applicata alla Medicina, Aprilli, 1846, p. 242.

‡ Note sur la Presence normale du Sucre dans le Sang., Gaz. Med. No. 38, p. 734.

§ Journal des Connais. Med. Chirurg. No. 4. April, 1816

be required; hence, the continual hunger of diabetic patients. But as the food consumed cannot be employed as nutrition, the patient wastes away, and his organs of digestion suffer from the excessive and vain employment of their functions. The case is different with healthy persons. The formation of sugar commences with them also in the stomach, but slowly, and is only completed in the intestinal canal; a very natural consequence, which Bouchardat and Sandras proposed in 1842.

Mialhe's* theory may be briefly stated as follows:—The starch of the food is converted into grape sugar, not only by diabetic persons, but also by healthy individuals, but in the latter cases it will be decomposed or burned off by the presence of alkalies, and under the influence of oxygen. This decomposition does not take place in diabetes, owing to the deficiency of alkalies in the blood, and the sugar, as such, is passed off by the kidneys. And this deficiency of alkalies is, according to him, to be accounted for by the suppression of the secretion of acid perspiration which always occurs with diabetic patients, and from the excessive consumption of acids which may be sometimes observed in this disease. His mode of treating the disease is, of course, founded on this view, namely, the administration of alkalies.

Costest† is of opinion that the disease cannot be accounted for by a purely chemical theory, as he found that it had been cured in a great variety of ways, some of which were incompatible with the theories given above, and from many other facts, particularly with regard to its cause.

Scharlau‡ is of opinion that diabetes is a disease which first originates in the spinal narrow, an abnormal vegetative function of the nervus sympathicus exhibiting itself in an abnormal process of digestion, and the consequence of which is that the nervus vagus is sympathetically affected, and an abnormal condition of the liver induced, which prevents the sugar from being converted into bile, and the excess is consequently carried off by the kidneys; he is of opinion, therefore, that all attempts at cure must have reference solely to the spine.

The opinion of Scharlau has only the advantage of directing the attention of pathologists to the disturbance of the secretion of the bile; but it has also the disadvantage of resting on a mere supposition, namely, that the sugar is converted into bile, of which we have no proof whatever, a disadvantage which the theory of Bouchardat and Sandras avoids. They suppose that the blood can only burn off a certain quantity of sugar in a given time. If too much sugar comes into the blood from the stomach and intestinal canal, the excess will always be separated by the liver, and will come with the bile into the intestinal canal, and thence again into the blood. The liver is thus a sort of regulator of the metamorphosis of sugar in the circulation. This theory thus accounts for the fact that a deficient secretion of bile produces a greater amount of sugar in the blood, and an increase in its saline constituents, and consequently the production of diabetes. Bouchardat has also made animals diabetic for a time, by causing them to consume a very large amount of sugary food.

But Bouchardat's theory does not explain how the grape sugar is decomposed in the blood of healthy persons. Mialhe endeavors to explain the question by the presence of alkalies. These alkalies are deficient in the blood of diabetic patients, and therefore the sugar is passed off undecomposed. But still this is an hypothesis, but it is one deserving of being tested by accurate chemical experiments.

Vogel makes the judicious remark, however, that if the theory of Mialhe be

* *Traitement Raisonné par les Substances Alcaline*; Journal de Med. et de Chirurg. pratiques; Janvier et Février, 1846.

† *Quelques Reflexions sur le diabete Sucre*; Jour. de Med. de Bourdeaux, Juillet Aout, et September, 1846.

‡ *Die Zuckerharnruhr nach eignen Untersuchungen*, Berlin, p. 100, 8vo.

correct, why are the alkalies deficient in the blood of diabetic patients? The explanation of Mialhe appears to him untenable, that it arises from the suppression of acid perspiration, because the quantity of acids thus given off is so extremely small, that a slightly increased acidity in the large quantity of urine passed would be more than sufficient to counterbalance it; and, as is well known, in the commencement of the disease, the perspiration is often normal; and we may also remark, that there are a great many diseases where the perspiration ceases to be acid, and is often partially suppressed, and yet the sugar in the urine is not increased. Vogel further states, that probably the opinion of Scharlau, that the disease arises from the increased thirst, may explain why, from the increased secretion of urine, and the consequent frequency of drinks, a greater excretion of salts, and especially of alkalies, may take place. This explanation, of course, remains to be proved by accurate experiments. But still Scharlau's opinion does not explain why there is increased thirst, for that which he has given is pure nonsense clothed in the metaphysical jargon of the anti-chemical school of physiologists, where a new name hides ignorance. Would that physiologists would give up metaphysics, and endeavor to become more positive and less verbose!

L. Lehmann* gives an account of a case of diabetes, attended with tuberculosis pulmonum, which was temporarily relieved by the use of animal food and cod liver oil. He detected sugar in the sweat, but not in the saliva; the blood also contained it. In one analysis the blood globules were deficient, and the solid constituents of the serum very large. The urine in this case contained neither urea, uric acid, nor hippuric acid. The patient perspired profusely, which shows that the suppression of the perspiration is not a general cause of the disease. In corroboration of this opinion, I may mention that Aldridge long ago stated that sugar was a normal constituent of the urine; and that he in many cases detected it in the sweat, mucous of the nose, &c.

Flesh, and the Substances derived from it.—Liebig† has published a beautiful memoir on the juices of flesh, which, from its importance, will mark an epoch in physiological chemistry.

Chevreul discovered some years ago in meat broth a crystalline substance, to which he gave the name of creatine, but from want of material, was unable to examine its properties very minutely, or to determine its composition. This Liebig has completely done. He obtained it in considerable quantity from the flesh of various animals, but most abundantly from the muscles of the heart of oxen. Creatine is soluble in water, from which it may be obtained in fine, shining needles, grouped like sugar of lead; in cold alcohol it is almost insoluble. It is a neutral body which dissolves in weak alkaline or acid liquids, without experiencing any alterations, but its properties are changed in the presence of concentrated acids, or of caustic alkalies. Strong acids convert it into an organic base, possessing some very remarkable properties, to which the name of creatinine has been given. Creatinine is formed in the presence of hydrochloric and sulphuric acids by the mere elimination of four atoms of water. It is more soluble in water and alcohol than creatine; its aqueous solution is caustic to the taste, like dilute ammonia, which it expels from its combinations. It turns reddened litmus paper blue, and forms, with all acids, salts, some of which are remarkable for their beauty, particularly the compound with platinum, which forms very fine crystals of a golden color. Creatine may be represented by the formula $C_3N_3H_7O_4 - 1-2 \text{ Aq.}$, which contains the elements of one atom of glycocoll or sugar gelatine, and one atom of ammonia. Creatinine is represented by the formula $C_3N_3H_7O_2$, which is equivalent to the elements of one atom of caffeine and one atom of amidogene.

* Dissertation, &c., Erlangen, 22 pages.

† Ueber die Bestandtheilen der Flüssigkeiten des Fleisches; Annal. der Chem. und Pharm., Bd. 62, Heft. 3.

Creatine and creatinine are constant constituents of human urine. The nitrogenous substance which combines with chloride of zinc, discovered by Pettenkofer in urine, is in fact a mixture of both.

If creatine be boiled with ten times its weight of hydrate of barytes, ammonia will be given off, and a new base produced called sarkosine. Carbonic acid remains at the same time in combination with the barytes. The formula of this new base is $C_6NH_7O_4$, which, extracted from that of creatine, leaves the formula for one atom of urea. In the reaction there is also a small quantity of a substance similar to urethan formed.

Liebig also proved that lactic acid was a constituent not only of the flesh of the herbivora, but also of the carnivora, and he obtained at the same time a new nitrogenous acid, to which he has given the name of incosinic. It does not crystallize, and many of its properties resemble lactic acid, and its formula is $C_{10}N_2H_7O_{11}$. In his examination of the inorganic constituents of the juice of flesh, he obtained some very singular results. The inorganic constituents of the juice consisted of the alkaline chloride, phosphates of soda, of lime, and of magnesia. The sulphates were totally absent. The ash gave a strongly alkaline solution, which, with the exception of that of the hen, contained salts of phosphoric acid combined with two, and with three atoms of alkali, which was shown by its reaction with nitrate of silver.

The relation between the potash and soda salts in the juice of flesh and in the blood is very remarkable. To an equivalent of potash the blood of an ox contains twelve to thirteen equivalents of soda. This relation is reversed in the aqueous extract of the flesh of the same animal. From this it follows that the blood-vessels in the flesh supply a larger quantity of potash salts than of soda; that consequently the blood vessels have a different amount of permeability for each part of the body. This is most remarkable in the case of the secretion of milk, in which potash salts predominate. The constant occurrence of phosphate of soda in the blood, and of phosphate of potash in the juices of the flesh, cannot certainly be accidental, but, on the contrary, must have connexion with the different functions; and hence the necessity of giving common salt with the food of animals in inland countries, where soda is not present in the fodder.

The juice of flesh, as is well known, reacts acid. This property Berzelius attributed to the presence of lactic acid, without, however, having proved it by any direct analysis; this, however, as we have mentioned above, Liebig has done. Now, the quantity of phosphoric acid present in the juices of flesh is sufficient to neutralize the whole of the alkalies existing in them, and if no organic acids were present, the resulting salts would be neutral. The quantity of organic acids contained in them, on the other hand, is not sufficient to neutralize the whole of the alkalies found, and consequently if no phosphoric acid existed in them they would, in this case also, react alkaline. The two classes of acids, however, are more than sufficient to neutralize the alkalies, and consequently acid of salts of both must result, and to these the acid reaction of the juices must be attributed. In proportion as one acid is increased will the quantity of the other set free be also increased. Hence Liebig concludes that if the stomach receives from the blood the acids which are contained in the juices of the flesh, the blood must, during digestion, become more alkaline, and that, in order to return to its normal condition, it must either receive a quantity of acid from the muscles, or the excess of alkalies must be transferred to the muscles, or removed by the kidneys. Liebig further concludes, that if the urine of animals be acid before digestion, it must become neutral or slightly alkaline during that process.

As blood and lymph are alkaline, and are only separated from the acid juices of the flesh by animal membranes permeable to both fluids, a great source of electricity must arise; and Buff, at the suggestion of Liebig, has constructed a voltaic pile, composed of disks of felt saturated with blood, and of brain and flesh,

which produced a strong deviation of the galvanometer needle, the direction of the current being from the blood to the flesh.

Lymph.—Geiger, apothecary in Stuttgart,* had an opportunity of examining the lymph from the lymph vessels of the foot of a horse, under the direction of Schlossberger. It was collected from a small crack beneath the fetlock of the hind foot.

The drops of fluid, which flowed out with varying rapidity, were clear like water, and, singly, almost colorless; in greater quantity, of a slightly yellowish color, of a disagreeable smell, and a slightly salt taste. The specific gravity at a mean temperature was 1017. Immediately after it had flowed out a colorless gelatinous coagulum formed in it, which, in the course of a few hours, adhered together and floated on the surface. The subnatant liquid was perfectly clear, slightly yellowish, and exhibited under the microscope but very few globules.

It gave no reaction with test papers. The serum scarcely became clouded on its being heated, and even after being boiled for ten minutes only a few flakes of albumen were thrown down; but when a few drops of acetic acid were added to the boiling fluid, a considerable precipitate was obtained. This, however, did not take place on adding it to the cold liquid. An addition of rennet (calf's stomach) and milk sugar scarcely troubled the liquid. When the serum was evaporated, a film was formed which was renewed when removed. On incinerating the residue, an ash was obtained which strongly effervesced with acids, and contained carbonic, phosphoric, sulphuric, and hydrochloric acids, combined with potash, soda, lime, and a trace of oxide of iron.

The fresh lymph, treated with potash, even in the cold, showed the presence of ammonia. Carbonic acid could not be detected with accuracy by the addition of other acids to the fresh lymph. The following is the result of its analysis:

Water,	-	-	-	-	-	-	-	983.7
Fibrine,	-	-	-	-	-	-	-	0.4
Albumen,	-	-	-	-	-	-	-	6.2
Extractive matter,	-	-	-	-	-	-	-	2.7
Fixed salts,	-	-	-	-	-	-	-	7.0

Together with traces of fat and of salts of ammonia.

[From the London Lancet.]

II.—*Report of a Case of confirmed Phthisis,† cured. With Observations on the use of Cod-Liver Oil in Phthisis.* By J. HORNE, Esq., London.

The all but universal fatality of phthisis, and the rarity of patients being ever cured, is a sufficient apology for publishing this interesting case:

F. H——, aged thirty-five years, was first taken suddenly ill, at 7 A. M., of the 15th of September, 1847, with a violent attack of hæmoptysis. He was never strong, and yet at times carried some flesh, as his weight in July of the same year will show, viz: eleven stone, seven pounds. From the quantity of blood spat up, and the severity of the attack, his friends entertained not the slightest hope of his ultimate recovery. He recovered, however, and also from a severe attack of influenza, which followed immediately on his convalescence.

* Analyse von Lympe, Archiv. fur Phys. und Heilkunde, Jahr. 55, p. 391.

† Physical signs: "A large cavity in the upper part of the left lung, cavernous respiration and cough, pectoriloquy, dull percussion."

November 30th.—I advised him to go into the country, to avoid, if possible, a relapse, as the influenza was then at its height, both in and around the metropolis. The part of the country whither he proposed going, viz., Isle of Thanes,—was then particularly healthy, and continued so for months, two cases only of influenza occurring from October, 1847, to March, 1848, and both in sufferers far advanced in years. The area embraced, including several square miles, contained several hundred inhabitants. A second severe attack of hæmoptysis followed while in the country, on the 25th of February, 1848, which the usual remedies, viz., full doses of acetate of lead, the mineral acids, digitalis, and opium, under the judicious advice of his friend, Mr. Freeman, completely failed to arrest. From the severity of the bleeding, alarming nervous prostration was induced. As soon as I could reach my patient, I ordered a strong infusion of matico,* an ounce of the leaves to a pint of boiling water. A wine glassful was given every quarter of an hour for the first hour, and afterwards every two hours, with twenty-five drops of spirits of turpentine, occasionally omitting the turpentine, however. Sixteen hours after first employing the matico and turpentine, the bleeding had completely ceased, and a great diminution in the expectoration of purulent matter likewise. The matico and turpentine completely arrested the profuse quantity of purulent matter expectorated; the expectoration afterwards consisting only of frothy mucus. To prevent all further hæmorrhage, the treatment was most strictly adhered to until the end of March, and in addition I ordered three doses of tartar emetic and paregoric.

March 1st.—Report by letter states "that he is doing well."

6th.—Complains of dryness of the fauces and more heat of the skin. Substituted effervescing draughts, with tartar emetic, every four hours.

25th.—Up to this date great improvement had taken place, but two days afterwards a report by letter stated that the cough had become very troublesome; he was gloomy in spirits; had no appetite; pulse fluctuating from 90 to 112 and 116 during the day, and his skin felt sweaty. Prescribed, in addition to the last medicine, one grain of the disulphate of quinine, morning, noon, and evening. This treatment had a very beneficial effect, and advantage was taken of it to remove the patient to Tonbridge, a locality particularly adapted for this class of patients in the spring of the year.

April 3d.—Found him laboring under considerable gastric irritation. Infusion

* The vast superiority of matico as an internal therapeutic agent in active hæmorrhage over all other astringents and styptics is not sufficiently recognized by the profession, as the following case will prove: Mr. R—, about thirty years of age, residing near Uxbridge, suffered from an alarming hæmorrhage from the nose, occurring spontaneously in October last. His medical attendant had recourse to every expedient to arrest the hæmorrhage, but in vain, and his life was despaired of, and a messenger was despatched to London to acquaint his brothers. One of the brothers instantly repaired to the sufferer. He employed matico, and six hours afterwards, to the surprise of the whole neighborhood, the bleeding ceased, having continued for days. The whole family suffer remarkably from this hæmorrhagic diathesis, and it has descended to the children in the family of one of the brothers.

November 7th, 1848.—I extracted by the fingers, and a pocket handkerchief, two front teeth from another brother, living at Walken, Herts. At the time scarcely a drop of blood followed; but in the evening of the same day it began, and continued for two days and two nights, without intermission, though not in sufficient quantity either to alarm my patient, or require his sending expressly for me. A few doses of the infusion of matico would have arrested the bleeding in a very short time. Had the teeth not been very loose for upwards of two years, and almost dropping out of the mouth, I should have declined removing them, without having first administered the matico for several days previously, which is the proper practice to adopt.

Another relative was fast sinking to the grave from disease and uterine hæmorrhage, which completely baffled the ordinary remedies. On the use of the matico, the bleeding ceased, and she is now fast recovering.

of rhubarb, ten drachms ; solution of potass, twenty drops ; three times a day. A powder of five grains of mercury, with chalk, every night, at bedtime.

11th.—Sputa streaked with blood, which was immediately arrested by the matico. Still the patient was dreadfully affected by it, and at this stage a more unfavorable symptom could not have manifested itself.

15th.—Found the patient better, with less cough, and strength again returning. The weather assisted not a little in bringing about the improvement.

May 4th.—I was suddenly summoned, as his cough had resisted most obstinately the remedies prescribed by his apothecary. Ordered Powell's essence of aniseed. A little explanation is required for ordering this preparation ; it will be given below.

7th.—The new form of opiate had quickly the desired effect, and he continued to mend a pace, and it was thought unnecessary for me to see him after the 20th, Mr. Gorham most kindly undertaking to watch him daily.

Mem.—The month of June came in remarkably cold and unpropitious, and when I was summoned again to see him, (June 15th,) the disease had made most fearful and rapid progress, phthisis in its worst form having become fully and unquestionably developed, and unless the high fever that was raging and consuming him was quickly arrested, no hopes could be entertained of regaining the lost ground. I advised his returning to London directly, and prescribed as follows :—Tartar emetic,* four grains ; spirit of nitric ether, four drachms ; compound tincture of camphor, four drachms ; nitrate of potash, four drachms ; water, a pint. Mix. Three table-spoonfuls to be taken three times a day.

June 22d.—Much better ; still I strongly advised his seeing Dr. Elliotson, whose opinion I was most anxious to have as to the true physical condition of the lungs.

23d.—After a most careful and minute examination, Dr. Elliotson noted down as follows :—“ All the physical signs of a large cavity in the upper part of the left lung, with cavernous respiration and cough ; pectoriloquy ; dull percussion ; case hopeless.” Dr. Elliotson advised me to give, in addition to the treatment being pursued, one tablespoonful of cod-liver oil three times a day.

The administration of the oil was not commenced for some days, as improvement was most striking, and especially as the first two or three doses seemed sadly to nauseate ; this, however, was overcome by combining it with equal parts of raspberry vinegar.

Returned to Minster.

As the patient continued to progress most rapidly, not requiring any change of treatment from the last ordered, I shall omit all further notes until October 20th, when he was again most carefully examined by Dr. Elliotson, and the following is a verbatim report from his minute book, which he allowed me to take a copy of on the 12th of November :

“ Grown stout and strong ; was never better ; gained five pounds weight in two months. Has taken a gallon of the oil. No dyspnœa ; slight cough, but he always had this, and his father also ; slight sputa in the morning ; percussion good, but some degree still of mucus ; a cavernous respiration in the old seat of the physical sign ; pulse 100 ; respiration 20.”

Returned to the country.

Nov. 24th.—Report by letter is as follows :—“ With the exception of a slight cough, I am now quite well, and if gaining flesh is an advantage, I have done that. July 25th, I weighed ten stone, five pounds ; Sept. 25th, ten stone, ten pounds ; Nov. 15th, eleven stone, one pound.” He continued to increase in weight, although he had discontinued the oil between Sept. 25th and Nov. 15th. Ordered disulphate of quinine, half a grain, three times a day.

Dec. 15th.—Report is as follows :—“ I am now quite well, and, I think, for many years, have not had less cough than I have at the present time. I thought

* In phthisis a most potent remedy.

that in all probability I should cough on first rising, for some time, but I get up, and scarcely cough once while dressing. Guess my surprise when the man said, 'Eleven stone, six pounds, this time, sir,'—when weighed last, the 13th inst. I should mention that the quinine has rather tended to lessen the frequency of the pulse, for when I began it, it was as near 80 as possible, but now it scarcely ever beats more than 75 or 76." Ordered rather to increase than decrease the oil, as it might prove more beneficial during the cold weather than heretofore. Independent of the other favorable symptoms, the increased weight of the patient, and the diminution of the frequency of the pulse, now at a perfectly healthy standard, (76 in the minute,) are convincing proofs of the satisfactory state of my patient and brother's health.

Remarks.—As cod-liver oil is becoming a prominent remedy for phthisis, a few remarks gathered from actual observation may prove acceptable. That it has the power, as it were, of holding the disease at bay, by keeping up the supply of nutriment to the system as fast, or faster, than the disease is taking it away, under favorable circumstances, cannot be denied. By favorable circumstances I would imply, the action of other remedies, not to be overlooked, that are imperatively demanded in the treatment of phthisis. The supply of this nutritious matter will be found, no doubt, to have the power of arresting the further progress or development of tubercle, the development and maturation of tubercle being in a ratio with the rapid wasting of the patient. Again, it must not be lost sight of, that throughout the treatment of this case very active remedies were prescribed. Amongst the foremost and most useful, I would name tartar emetic. I know of no remedy that has the power of allaying so well the devastating fever that is destroying the patient. Can cod-liver oil arrest this condition? I think not. Can the patients be treated successfully without cod-liver oil? I think they may; although there is not a shadow of doubt,—as so well expressed by Dr. Elliotson,—that it is immeasurably superior to any other remedy that has been offered for the treatment of phthisis, provided we regard it in its proper light, and do not expect too much from it. This, of course, can only be proved on a large scale, by testing it without the assistance of other remedies, care being taken to ascertain its effect by acknowledged practical stethoscopists, that the cases are cases of acknowledged phthisis. Had my brother's case not been properly prepared, prior to administering the cod-liver oil, the result would have been very different. The form of preparation of opium I prefer, is the compound tincture of camphor, and should that fail to arrest the cough, or rather, the alarming fits that often suddenly occur, I prescribe large doses of solution of vinegar and opium, and if that is not enough, and other preparations of opium have failed, I have used, with very great advantage, Powell's aniseed balsam, an excellent combination, though the manner in which it is before the public is highly objectionable. Dr. Elliotson informed me he had given the cod-liver oil freely in two other cases of phthisical cavity of the lungs, and in both the cavity became reduced, and the health and strength of the patients increased, so that they would hardly allow that anything ails them. In one the cavity had been immense; it is now only above and behind the clavicle. The pulse in both is still quick. He was lately called to see a similar case, attended by Dr. Williams, and the same amount of benefit had been derived from the oil. Still he detected a cavity remaining at the upper and back part of the left lung, and added, he had not yet seen a perfect cure by the oil.

III.—Treatment of Gout and Rheumatism by Anodynes.

To the Editor of the London Lancet:

SIR :—For some years past I have conceived both gout and rheumatism to be altogether neuralgic affections; and under this impression I have for a considerable time treated all cases of this kind that have come under my care chiefly by anodynes, topically applied; and the results of this practice have in no degree disappointed my expectations.

In rheumatic fever—which, I think, may be fairly considered as sympathetic of many co-existing local irritations—I content myself—and generally my patients too—with clearing out the *primæ faciæ*, and applying lint, dipped in strong solutions of opium, or of belladonna, to the seats of pain, covering the wetted lint with oiled silk, that the soothing effects of warmth and moisture may at the same time be attained. And I have found the febrile state, the local irritations being subdued, easily controlled by the acetate liquor of ammoniac, combined with tincture of hyoscyamus and nitrate of potash.

In gout, unquestionably, the constitutional state must be more particularly attended to, especially as far as regards the prophylaxis; and in young and robust people, where rheumatism occasionally attacks the heart, I yet think it sometimes necessary to bleed from the arm. That, however, in these cases, we might not often, if not always, trust to narcotics, I am by no means well assured.

I am, sir, yours respectfully,

JOHN COOPER, F.R.C.S.E., &c.

[From the London Lancet.]

IV.—ROYAL COLLEGE OF SURGEONS.—Fellowship Examinations.

The following questions were submitted to the candidates for the Fellowship of the Royal College of Surgeons, on the 2d ultimo, on which occasion seven gentlemen presented themselves for the honor, all of whom were admitted.

Senior Candidates.—Anatomy and Physiology.

1. Describe the course of the aorta from its origin to its termination.
2. State what are the vessels from which blood flows into the right auricle; describe the course of the blood through the cavities of the heart, with the valvular structures regulating its progress.
3. What are the arteries distributed to the brain? State the course they take to the interior of the cranium.
4. State whence the nerves are derived which are distributed to the upper and to the lower limbs.
5. State what are the chief muscles employed in inspiration, and in what directions they enlarge the cavity of the chest.
6. State where the large intestine begins; describe the course of it from commencement to termination.

Junior Candidates.—Anatomy and Physiology.

1. Enumerate, in the order of their situation, the parts met with in the perinæum of the male, proceeding from the integuments to the prostrate gland and bladder.
2. Describe the portio dura of the seventh cerebral nerve, its origin, course, distribution, and communications with the adjacent nerves.
3. Describe the structure and properties of the iris.

4. Describe the arrangement of the glands in the several divisions of the intestinal canal, also the structure of these glands, and the views entertained of their functions.

5. Describe the structure and properties of the tissues forming the coats of an artery.

6. What are the present views entertained of the physiology of the kidney?

On the 4th, the same gentlemen presented themselves for examination in Surgery and Pathology, when the following questions were submitted to the senior candidates, viz :

1. State what are the ordinary consequences of enlargement of the prostate gland, and what is the treatment for their relief.

2. State what are the different forms of inflammation in the fauces and pharynx, and what is the treatment suited to their removal.

3. State the characters, consequences, and treatment of hæmorrhoidal swellings.

4. State what is the treatment suited to bursal tumors in their different stages or condition.

5. State what are the inflammatory conditions of the mammary gland consequent on parturition, and their treatment.

6. State what are the characters and treatment of the inflammatory affection of the eyes occurring in infants.

The following questions were submitted to the junior candidates on the same subjects, viz :

1. State what are the consequences of concussion of the brain, and what is the treatment required in its several stages.

2. Describe the characters of carcinoma in the mammary gland, and state what are the diseases occurring in the gland which might be mistaken for carcinoma.

3. Give an account of umbilical hernia in respect to the ordinary conditions of the sac, its coverings and contents ; also, the treatment when strangulated, and its ordinary result.

4. In any case where puncture of the urinary bladder (male) is deemed expedient, state the grounds of preference to the operation above the pubes, or from the rectum.

5. State what are the changes of structure in the eye which ensue from iritis.

6. Describe the changes of structure which ensue in the several tissues of a joint from inflammation commencing in the synovial membrane.

Part Fourth.

AMERICAN MEDICAL INTELLIGENCE.

I.—*Some remarks on premedication and the doctrine of a retrograde action from collapsion of the absorbent and capillary vessels.* By SAM'L. A. CARTWRIGHT, M. D.

At the present time, the question of premedication, and the doctrine of a retrograde action from collapsion of the absorbent and capillary vessels, are invested with new interest, as being connected with a subject of great practical importance. A few remarks on them may not be unacceptable to the profession. While the administration of nostrums, or any kind of medicines, to prevent disease in persons apparently healthy, has ever been discountenanced by the medical profession as injudicious and empirical, yet circumstances sometimes arise when this good general rule, like all others, has its exceptions. To define the exceptions would be a desideratum. A tooth may never have ached, and yet may need extraction; some accustomary evacuation may have been suppressed without producing any perceptible derangement of the health, but will lead to disease unless restored by premedication; a poison may have been swallowed requiring instant remedies in advance of its perceptible effects; or the poison may have been breathed, as for instance the malaria of the Pontine marshes, requiring a full dose of quinine in advance of any morbid symptom whatever, to prevent the development of a malignant intermittent. The exceptions to the general rule are too numerous to specify particularly in this paper: they may be summed up by stating, that in all cases where there is good reason for believing that a morbid impression has been made on the system, and is ripening into a serious disease, the physician would not only be justifiable, but it would be his duty to give medicine in advance, to prevent, if possible, the threatened attack, or to ward off its violence, without waiting for the development of any morbid symptom before he acted. A question here arises of some practical bearing in some parts of our country where the cholera is prevailing: shall a physician stand still and see one member of a family after another, or the negroes on a plantation, day after day, fall lifeless around him, cut down by the

malignant form of that disease, and do nothing to save the rest, who have been subjected to the same causes, and have the disease in a latent state in their systems, ready to burst forth at any unexpected moment in the dead of night, and to run into collapse before morning? Would he be justified in calling such inaction *science*? Would not true science consist in saving the negroes by premedication or removal? If he could not see the difference between giving an active dose or two of medicine, under such threatening circumstances, and the indiscriminate use of nostrums or premedication under all circumstances, he has mistaken his calling, and ought not to practice medicine. If authority be needed, it is at hand. Dr. Nutt and Dr. Lem. Gustine, of this city, both of whom are experienced physicians of well established reputation, have advised and practiced premedication. The latter, in a recent instance, advised, on a very large plantation, the giving an efficient dose or two of medicine before hand, and the former has long since adopted the same method, whenever in his judgment the attendant circumstances warranted such a procedure. But these are, by no means, the only advocates of the measure. It is true that the cholera sometimes only attacks one or two members of a family, or a few negroes on a plantation, without disturbing the rest; but in such cases, it is generally the infirm, or those who have been exposed to some peculiar causes not affecting the others, whom it selects as its victims. It is no less true, however, that when it clothes itself in its malignant garb, and begins to strike down the hale and robust, who have not been exposed to any peculiar morbid or exciting causes, it will, almost to a certainty, thin out the flock, unless arrested by premedication or removal.

In regard to the doctrine of a retrograde action from collapsion of the absorbent and capillary vessels, and the axiom founded thereon, that "a patient cannot purge and sweat at the same time," many objections are made by those whose heads are easily turned by every foreign notion, and have too easily become the disciples of the reflex school of London, founded by Dr. Marshall Hall. They forget that New Orleans is entitled to the credit of overturning the whole system of the London reflex school, root, branch, and beyond the possibility of redemption, resuscitation or revival, through the experiments made in Charity Hospital by one of her own physicians, the learned Dr. B. Dowler, and published to the world in the pages of the *New Orleans Medical Journal*. It is impossible, if these experiments be correctly reported, (and no one doubts their correctness,) for the reflex system of Hall to be true. The experiments sweep from under it every vestige of a basis to stand on. Yet there are not wanting some among us, captivated by the high sounding terms and new phrases of the reflex hypothesis, who still adhere to it, as if for no other reason than because it came from London; certainly not for any truth it contains, because it has been demonstrated in New Orleans to be devoid of all truth whatever.

The very persons who look upon the cerebro-spinal axis as a kind of looking glass, reflecting motions like the mirror reflects light, reject the doctrine of retrograde action from collapsion of the absorbent and capillary vessels as heterodoxy, or even an impossibility. It is very clear to

them, that the cerebro-spinal axis can reflect motions, after it has been demonstrated before their eyes, by the experiments of Dowler, that the said motions are not reflected by it, but they are utterly at a loss to tell how water can run back in tubes, which are nearly of the same caliber throughout their whole course. They see the water, which is poured out, resembling that which they know circulates in the tubes. They see the circulation gradually suspended, and finally stopping. The water, no longer going forward in the tubes, must be standing still, or coming backwards. But that it does come backwards in cholera, is too much for their credulity to believe, although it is proved by the constant oozing of serous or water fluids from the membranous surfaces after the pulse has ceased to beat. They can understand, or think they do, how fluids pass through apparently solid substances by endosmosis and exosmosis, but are entirely at a loss to know how it is possible for a liquid substance, ever so thin, to run back in absorbent vessels, after it has ceased to run forward, although absorbent vessels are long tubes of nearly the same diameter their whole course. They can understand, how in hemorrhages of various kinds blood can escape in large quantities from membranous surfaces, without any lesion of the membrane perceptible to the senses, yet they cannot understand how lymph, or chyle, or the serous or thinner fluids can make their escape from the vessels holding the same, because if they acknowledge it escapes from them, they must acknowledge that it is by a backward motion or retrogradation from collapsio, which would be conceding the question of retrograde action. They deny that fluids in the absorbent vessels can be poured back, because the absorbent vessels have valves. Anatomy shows, however, that the most of these valves do not close up the caliber of the vessel entirely, unless when under the influence of the contractility imparted by the vital power. When the vital power is diminished, or destroyed, as in collapsio, the valves do not close the absorbent tubes against retrograde action, because it is only when under the influence of active vitality, that the valves act in closing the tubes against any backward motion, and cannot close them in collapsio, because the valves in that state do not close the tube. But the question arises, what were the valves intended for, if not to guard against retrograde action? The doctrine, therefore, of retrograde action is proved by nature herself, in furnishing absorbents with valves to guard against it; otherwise, the valves would have been useless. If, without the valves, retrograde action would occur, it may occur when the diminished tonicity of the system prevents the valves from closing up the tubes as in the healthy state. Each and every absorbent vessel, like the great efferent duct, the intestinal canal, is a hollow organ, and supplied, like it, with tunics, nerves, and blood vessels, and it must be subject to like laws that the intestinal canal itself is, as it regards spasm, irregular or inverted motion. It is an apparatus on a smaller scale, provided with a fibrous tunic, blood vessels and nerves, which, when morbidly excited, cause spasms, irregular or inverted motion in the larger tube, the intestinal canal itself. The Asiatic cholera differs from the cholera morbus in being a spasmodic, irregular or retrograde action in these little tubes, the absorbent vessels, instead of the larger tube, the intestinal canal itself; or, in other words, the Asiatic

cholera is a cholera morbus of the absorbent tubes of the intestinal canal. This morbid or retrograde action may seize on a greater or less number of the absorbent tubes at the same time, causing the disease to be more or less mild or severe, in proportion to the number implicated in the first instance. The diarrhœa is, therefore, a secondary effect of the spasmodic, irregular and inverted action of the absorbent vessels of the intestinal canal, caused by their collapsion.

The great practical axiom of the retrograde doctrine, that "a patient cannot purge and sweat at the same time," is expressed in language too plain and concise to meet with favor from those who accept nothing as orthodox science, which is not expressed in high sounding and almost unintelligible words. They do not seem to comprehend, that it is only a shorter way of expressing the well known physiological law, that the skin and the mucous membranes of the intestinal canal, including all the muco-tubular ramifications of that great efferent duct, occupy towards each other antagonistic relations in the normal state and in disease take on supplementary action; which, from the necessity of the economy, must be alternative, and cannot be simultaneous. The appearances to the contrary, observed in collapse of purging and sweating abnormally, at the same time, are only illusions blinding the eyes of those who see every thing through Hall's exploded theory, or some other foreign hypothesis no better founded. Not believing in the retrograde action from collapsion of the absorbent and capillary vessels, they make no distinction between the moisture on the skin from that cause and a sweat properly so called. The transudation causing a moisture on the skin, when the absorbent vessels are moving their fluids forwards, is altogether a different thing from the exudation, which causes a moisture on the skin, when absorption is suspended, because, then retrograde action from collapsion takes place. The former, physiologically speaking, is a sweat; the latter not. That a dripping moisture on the skin, from a collapsion of the cutaneous capillaries, may occur, while a copious diarrhœa is going on from a retrograde action of the absorbent vessels of the intestinal canal, draining the thoracic duct and through it the whole body, is not only admitted, but is adduced in proof of the retrograde doctrine. It shows that the two antagonistical organs, the skin and mucous membranes of the *prima via*, are no longer antagonistical, as in the forward motion of the fluids, the one balancing the other or alternating it by a supplementary action, but are both laboring under collapsions—that the fluids are coming out of both, whether called retrograde action or by any other name. From not distinguishing between a moisture on the skin from collapsion and a true sweat, in the proper sense of the term, many fatal errors are committed in practice. The former requires stimulants of the strongest kind to arrest it by arousing the nervous energies; the latter requires plentiful diluents to feed and support it. As an objection to the axiom, that "a patient cannot purge and sweat at the same time," the question (see page 233) has been asked, "Who has not seen cases sweating, with warm skin, good pulse, neither vomiting, purging nor cramp, and yet sink gradually to the grave"? Now, one of the objects of this paper is to show that there is no necessity for such patients dying, if large doses of quinine, opium or heating stimulants be withheld and

diluent and nutritive drinks freely given to support the sweat. The retrograde doctrine, if understood, will save all such cases. Like every thing good, it has to encounter opposition. An attempt has been, or will be made to discredit the post mortem appearances, on which it is founded. But these were all laid before the Medico-Physical Society, last winter, word for word, as subsequently printed. Not obtruded, but by a special written request of the society in all due form, and received a vote of thanks. If any one on that occasion had doubted the correctness of the autopsic observations, then was the time to arrive at truth, if truth had been the object in view. The cholera was prevailing at that time, and dissections were daily going on at the hospital. Medical authorities had been laid aside, and the scalpel of our own anatomists had been appealed to, as the highest of all authority. It was a common observation around the dissecting table, first noticed, it is said, by Dr. McCormick, that every cavity contained more or less of a rice water looking fluid, the bladder, the kidneys, the uterus, &c. True, there was some difference of opinion whether it was more like rice water than like some other fluids. Dr. Dowler thought it looked more like milk in some of the cavities, as in the bladder, for instance. All seemed to agree in classing it as a morbid pro fluvium peculiar to collapse. The pulmonary arteries were filled with a grumous blood, and the pulmonary veins comparatively empty. The venous system was *plus* and the arterial *minus*, in regard to blood. The lungs were not heavy or congested. The absorbents of the lungs being very large, will account for the want of weight in those organs. The thoracic duct was empty. It is unnecessary to specify all the post mortem appearances. Suffice is it to say, that in every cavity, and on every surface, evidences abounded of profluvia from collapsion or retrograde action of the capillary vessels. It is not intended to say that there was a *retrocessus* in all cases and in all parts of the body, in any but the well marked cases. A patient may die with cholera, without every part of the body being stricken alike by the collapsion. A few drops only may flow from one organ, and a great quantity from another. The aberrations in the post mortem appearances are readily accounted for, under the retrograde doctrine. In fact, there is no phenomenon connected with the progress of the disease, that does not meet a ready explanation under it. Yet the disciples of the reflex school will have it that nothing is known about its pathology, because their exploded theory will not explain it, and they condemn, in toto, the treatment advised, because their hypothesis of reflex actions not only hangs like a veil between them and the indications to be fulfilled, but distorts and misrepresents every thing connected with the pathology and the practice founded thereon, leading them to the erroneous conclusion that the former has no foundation in anatomy and physiology, and the latter no success when put to the test of experiment, because some Hallite in New York, or some where else, has tried it imperfectly in a few desperate cases, and abandoned it. That the Hallites do not understand a single word of the pathology, is evident from the questions they ask and the objections they raise to the retrograde doctrine. They say, if the retrograde action be admitted, "how much rice water could the thoracic duct and all its intestinal tributaries

contribute, and they answer their own question by saying, not more than four ounces," because when once emptied, the reflex theory does not show them how it can be filled again. Anatomy and physiology, however, will readily show them how gallons instead of ounces of rice water can be supplied, and how the thoracic duct can be filled again. Those sciences teach that the lymph, in its composition, is identical with the fluid portion of the blood, and that the blood itself consists of lymph and red particles; that after having supplied the materials for the nutrition of the tissues, the blood is again returned into the circulation in the form of lymph, or blood void of red particles by the lymphatic system of vessels, and that the thoracic duct is the great channel for all the lymph of the whole body, except a comparatively small portion, that gains the circulation by the right lymphatic duct. The retrograde doctrine teaches that the Asiatic cholera is a cholera morbus from collapsion of all or a portion of the lymphatic and chyloferous tubes of the small intestines. These vessels are of two kinds, those of the villi seated in the mesentery and passing through the mesenteric glands, called lacteals, and those which run upon the surface of the mucous membrane of the intestines before entering the mesenteric glands and passing into the thoracic duct. When the cholera morbus or retrograde action seizes any of these vessels, they pour their contents into the intestinal canal, and draw on the thoracic duct for more. The thoracic duct continues to be supplied as usual by the lymphatic vessels, which empty into it. It is only the tubes between the duct and the bowels whose action is retrograde; all the other lymphatic vessels of the body, so far from their action being retrograde, are rather excited into increased activity, to supply the waste of fluids in the thoracic duct. They pour the lymph, as they always did, into the thoracic duct, but instead of its running into the left subclavian to commingle, as heretofore, with the venous blood, it is diverted into the intestinal canal by a retrograde action of the vessels lying between that canal and the thoracic duct. The venous blood becomes thick, because it no longer receives the lymph from the thoracic duct. All the watery or serous part of the blood, in the cellular and every other tissues, having been absorbed by the lymphatics, and conveyed into the thoracic duct and thrown out of that duct into the bowels, interstitial absorption takes place to supply the lymphatics with fluids. The muscles undergo molecular transformation, to feed the hungry lymphatics. This muscular absorption explains the rapid prostration and shrinking and loss of flesh so characteristic of cholera. The metamorphosis of *muscle*, from interstitial absorption, yields the albuminose, which has been discovered in the white fluid found in the intestines of cholera patients. Hence, the discrepancy in the analyses of the cholera discharges is readily accounted for, as it must vary with the stage of the disease. The albuminose can only be yielded by actual muscular absorption.

Collapsion of the capillaries of the skin and mucous membranes and their retrograde action, arising therefrom, are only effects of the progress of the disease, not causes. The prime cause is the collapsion of the absorbent vessels between the intestinal canal and the thoracic duct, from some unknown morbid impression, producing collapsion in

those vessels and setting up in them a retrograde motion; that motion drains the thoracic duct, and calls the whole lymphatic system into increased activity, to supply it with fluids, which feed it with quarts and gallons instead of ounces; not by retrograde action, but by direct absorption. The retrograde action being in the system of vessels, between the duct and the *prima via*. All other retrograde actions are mere effects of the collapsion caused by the progress of the disease. Hence, to look, like Andral has, to the mucus secreted in large quantities, and to suppose it to be altered into something else by its sudden secretion, is looking to effects instead of causes.

The objection to the retrograde action of the system of vessels, between the bowels and thoracic duct, in consequence of valves in the absorbent system, is overruled by the anatomical fact, that that part of the absorbent system can scarcely be said to have valves at all. Major affirms that they are nothing but sphincters, formed by circular fibres; the real valves, or those which are at all entitled to be so distinguished, lie in the thoracic duct and other parts of the absorbent system, and of course cannot oppose the motion of the lymph, out of the general lymphatic system into the duct, because that is its natural course. The valves of the duct cannot oppose its motion into the collapsed vessels between the duct and the intestines.

The indications of cure are plain under this pathology. It suggests them. One indication is to diminish the venous plethora in the cava, by blood-letting, and to let in the lymph from the thoracic duct to thin the blood; because while that plethora continues, the lymph of the thoracic duct will find its way into the bowels, through the retrograde action of the collapsed chyliferous ducts. Fresh air, to feed and fan the combustion in the lungs, and to facilitate the passage of the blood into the pulmonary veins, will be always useful in diminishing the plethora in the cava, thereby giving ingress to the lymph of the thoracic duct into the blood, and preventing its egress into the bowels. Another indication would be cold applied to the general surface, as cold is known to arrest cutaneous absorption, and thereby preventing the lymphatics from carrying off the serum of the blood so fast. Another indication would be mustard plasters and strong heat over the palsied or collapsed vessels of the abdomen. But the main indication consists in direct medication, by heating pungent substances to the mucous membrane of the bowels; the camphor, pepper, &c., in a full dose, to act directly upon the membrane itself, which is an absorbing surface, as well as upon the villi in which the lacteals arise, to stimulate the entire mucous surface into life and activity, and thereby to arrest the retrograde action. And lastly, as soon as that action has been arrested and perspiration produced, to support the perspiration with plenty of diluent and nutritive drinks. The intestinal absorbents being set in motion, they will soon restore the necessary fluidity to the blood. Perspiration favors absorption from the internal mucous surfaces, and should be encouraged and supported; the skin and mucous surfaces being antagonistic, no abnormal purging can occur during its continuance, i. e., "the patient cannot sweat and purge at the same time." But the moisture on the skin from collapsion, requiring cold applications or

stimulating frictions to check it, is not to be confounded with a warm perspiration, which requires gentle covering and thin beverages agreeably seasoned, to support it.

To suppose that the primary effects of cholera work some transformation in the albuminous and fibrinous parts of the blood, analogous to what pepsine does in the stomach, (the latest imported notion,) is disproved by the fact, that if that were the case, a little paregoric or peppermint would not so often cure it in its incipient stages; but to admit that the primary cause of cholera does nothing more than derange the functions of some of the absorbent tubes in the mesentery, causing them to take on a retrograde and spasmodic action from collapse or paresis, (not unlike that which often affects the great efferent tube, the intestinal canal itself, in cholera morbus, bilious colic, &c.,) the whole mystery of the facility with which so formidable a complaint is cured, (ninety-nine in a hundred,) in its incipient stage, when the most efficient remedy is brought to bear upon it, stands revealed. American physicians who import their theories, ought to keep up with the doctrines abroad, if they are determined to laugh at those of their own countrymen. From a late number of the *Medico-Chirurgical Review*, it will be seen that Hall's reflex system, which has so long been a stumbling block in the path of science, and to which false philosophy, much of the mortality in cholera is to be attributed, is rapidly descending to the tomb of all the Capulets. The medical public is indebted to Dr. B. Dowler for overthrowing that false idol, by his great discovery of the location of muscular contractility. The full length and breadth of his discoveries have not yet appeared, but enough has been shown to prove to the scientific world, that it is not London, as Hall's admirers vainly supposed, but New Orleans, which has added another member to the family of immortals in medicine, and that it is Dowler, instead of Hall, for whom the seat by the side of Harvey is reserved.

Some idle objections to the doctrine of retrograde action of the intestinal absorbents, as the first sequence of morbid actions in cholera, have been made by those, who, behind the times themselves, have taken it for granted that the doctrine rests upon the antiquated and exploded notion of patulous mouths of absorbent vessels, opening into the cavity of the intestinal canal. They do not seem to be apprised of the fact, demonstrated by modern physiologists, that the villi and the whole mucous membrane of the intestinal canal, are, properly speaking, the mouths of the absorbents, and that substances have ingress and egress to and from the absorbent tubes with the greatest facility, by endosmosis and exosmosis. The late professor Harrison, for many years, taught this doctrine *ex cathedra*, in the city of New Orleans. If those objectors have stood in darkness while that bright light was shining among them, it does not follow that every one else has been alike insensible to his merits, and have failed, like them, to profit by his physiological investigations, while they were dazzled by London theories, and prevented from seeing the facts daily demonstrated before their eyes at home.

II.—*Mobile Medical Society,*

We take much pleasure in inserting in the Journal the transactions of this Society, and shall be pleased to continue the subject at the option of the Association. The publication of the proceedings of Medical Societies will not only stimulate its members to observe and report interesting and instructive cases, but, we hope, will likewise induce other medical corporations in the south, including the *Physico-Medical Society* of this city, to follow the example. The time has arrived when the physicians of the *South* should unite and speak out through their organs—the medical journals—their experience, and their opinions, on medical and scientific subjects. We feel gratified that the Mobile Medical Society has chosen our journal as the medium through which to make public an abstract of their proceedings. We regret that these proceedings arrived too late to be inserted in the first part of the Journal.

[EDITOR.]

An abstract of the Proceedings of the Mobile Medical Society.

MOBILE, Friday, July 6th, 1849.

The regular meeting of the Mobile Medical Society was held at the Hall at 8 o'clock. The Vice President, Dr. F. A. Ross, in the chair. Present the following members: E. Gains, N. Walkly, Massey R. Miller, J. McNally, A. B. Dorsy, T. P. Jenkins and Geo. A. Ketchum. An application for membership from Dr. W. H. Anderson was presented and acted upon, and he was declared unanimously elected a member.

Dr. E. P. Gains read a very interesting essay on the subject, "A knowledge of causes the only true guide to practice." Dr. Fearn was appointed to read an essay at the next meeting, and Dr. Hicklin to follow him at the next. The members were then called upon, as usual, for their reports of interesting cases from their practice.

Dr. Jenkins reported two cases of anasarca; one in the person of an old negro man, who had suffered from the disease for four or five years, had become much worse within the last three months. Treatment; purgative doses of elaterium, alternating with diuretics. Tincture of digitalis had been used, commencing with fifteen drops, and increased to three drachms. Upon the commencement of the use of the digitalis, the pulse gradually rose from fifty beats to one hundred and fifteen in the minute. The case was improving. Dr. McNally said he thought that the digitalis could not have been a good article, or its specific effects on the action of the heart would have been observed.

Dr. Ketchum reported a case of retained placenta, where the os uteri, though in a dilatable condition, was so extremely irritable that all efforts at extraction were found worse than useless. The placenta retained its position from want of power in the body of the uterus to expel it. Ergot was administered in large and repeated doses without producing any effect, though the medicine was fresh and pure; the biborate of soda was then resorted to, and, after the second dose of fifteen grains, the placenta was expelled by the strong uterine contractions produced.

Dr. Ross mentioned that he had again observed some peculiar effects produced by the administration of large doses of hydrioid. potass. in rheu-

matism. The symptoms noticed were severe pains in the front part of the head, and swelling and redness of the eye-lids, resembling conjunctivitis. He had produced these symptoms several times, and he found that they invariably recurred every time the medicine was used in large doses, say twenty grains three times a day. In smaller doses, in the same individuals, these effects were not observed. The bowels had been kept well open during the administration of the medicine.

Dr. Walkly suggested that the biborate of soda acted, in the case mentioned by Dr. Ketchum, by relaxing the too rigid contraction of the uterus, produced by the ergot. But he was informed that such a state of the uterus did not exist, and that the action of the soda was much like that usually produced by ergot. Dr. W. said that his reason for making the enquiry was, that he had often used the same remedy to relieve spasmodic dysmenorrhea with success.

Dr. Miller then proposed that the Society go into an election for the Board of Medical examiners for the ensuing year. After several ballots, the following members were elected: Drs. Ross, McNally, Ketchum, Crawford and Miller.

After the transaction of some miscellaneous business, the Society adjourned.

GEO. A. KETCHUM, Secretary.

MOBILE, Friday, July 20th, 1849.

The regular meeting of the Mobile Medical Society was held at the Hall, at eight o'clock, P. M. The Vice President, Dr. F. A. Ross, in the chair. Present, T. Jenkins, Geo. Ketchum, R. Miller, J. E. Nott and N. Walkly. After the reading of the minutes of the last meeting, Dr. Miller announced to the Society the melancholly news of the death of Dr. Paul H. Lewis, for many years an active member of this Society. On motion of Dr. Miller, a committee of two were appointed to draught resolutions expressive of the feelings of the Society at this bereavement. The Chair appointed Drs. Miller and Jenkins on this committee. They reported the following preamble and resolutions:

"WHEREAS, it hath seemed pleasing to a Divine Providence, in the excellence of his power and wisdom, to remove from our midst our lamented brother, Dr. Paul H. Lewis, be it

"*Resolved*, That in the decease of Dr. P. H. Lewis, the profession in Mobile has lost one who was distinguished by his zealous devotion to its cause, and his untiring industry in the discharge of its duties, the Mobile Medical Society, one of its firmest supporters, and most efficient members, and the community at large, a most worthy and accomplished citizen.

"*Resolved*, That we, the members of the Mobile Medical Society, do offer a final testimonial of the high esteem in which we held the deceased, both as a practitioner of medicine, and a private citizen, by wearing the usual badge of mourning on the left arm for thirty days.

"*Resolved*, That a copy of these resolutions be sent to the family of the deceased, be furnished the city papers for publication, and that they be entered on the minutes of the Society."

Upon the adoption of the above resolutions, it was proposed to suspend the usual business of the Society, and the Society accordingly adjourned.

GEO. A. KETCHUM, Secretary.

MOBILE, Friday, August 3d, 1849.

The regular meeting of the Mobile Medical Society was held at the usual time and place. The Vice President, Dr. F. A. Ross, in the chair. The following members were present: W. H. Anderson, E. P. Gains, G. A. Ketchum, Massey R. Miller, J. E. Nott and N. Walkly. Drs. Fearn and Hicklin, from whom was expected essays, were both absent. Dr. Jenkins appeared, and took his seat. Dr. Jos. E. Nott reported an interesting case of longitudinal fracture of the metacarpal bone of the thumb. The subject of the injury had fallen from a building, and was much bruised otherwise. He could not explain how he had received the injury of the thumb. Dr. Jenkins said he had two cases of dengue, one of them had the eruption which appears in this disease, and the other was free from it. The fever in each case was light. He reported the case of dropsy, spoken of by him before, as improving. His digestion was now good, and he was using the muriated tincture ~~ferr.~~ Dr. Nott remarked, that in cases of dropsy, where the digestive apparatus was in good condition, he always found the martial preparations the best remedies.

Dr. Miller said he had two cases of dengue in his practice, one of them had the eruption, and the other had not. Dr. Walkly said he had seen several cases of acute laryngitis in adults, accompanied by much swelling of the tonsils. They had yielded readily to nauseants. Dr. Ross remarked that he had observed some such cases among children.

Dr. Ross reported a case of epileptic convulsions, the subject of them a child six or seven years old. The child had, about a year ago, a similar attack. It had been suffering in the present instance about an hour, when the Dr. first saw it. All the muscles of the body were violently convulsed, but particularly those of the right side. He tried the usual remedies in such cases, but without success, and the patient in the mean time was becoming much exhausted. Dr. Woodcock arrived at this time, and suggested the use of the chloroform. It was administered by inhalation from a handkerchief, upon which had been poured about one drachm. In less than two minutes, the convulsions ceased entirely, and the pulse improved. After the lapse of thirty minutes, the spasmodic action again commenced, and the chloroform was again had recourse to; in forty seconds all convulsive action ceased. In thirty minutes more the child was again threatened, and again the remedy was used, with a like good effect. The convulsions returned no more, and the child was very soon as well as ever. Dr. Nott knew of a case where the same remedy had been used. The patient was nineteen years old, and had suffered from this disease since infancy. Since chloroform had been resorted to, the improvement in the case was evident.

Dr. Walkly had also used the remedy in a case of convulsions, occurring in a child nine years old, in which, although the child was near pulseless, it had checked the convulsions, and the child recovered. He had also relieved two cases of convulsions, supervening upon attacks of bilious colic, with the same remedy. Dr. Nott said that he had heard recommended the following remedy in bilious colic and obstinate constipation: a few drops of croton oil, applied to the umbilicus. It produced its purgative effects in a short time.

Dr. Ross drew the attention of the Society to two interesting cases of nephritis. Case 1.—A merchant applied to him, suffering severely with pain in the region of the kidneys and bladder, and in the glans penis. Pulse was small and quick, and the skin hot and dry; urine passed in small quantities. He had already taken a warm bath, and a purgative enema, without relief. The Doctor gave him a purgative dose of magn. sulph., and small and repeated doses of magn. carb. digitalis, &c., and though the skin became moist there was no relief to the pains. He then ordered him to be cupped over the kidneys, and in half an hour after the application of the cups, he was entirely relieved.

Case 2 —Was a child six years old, suffering in the same manner as the patient before spoken of. Two dry cups were applied over the kidneys, and relief was instantaneous.

Dr. Ross also mentioned the case of a lady, from New Orleans, to whom he had been called. She was suffering from intermittent fever, and had taken five grains of quinine, on two occasions before the Doctor saw her. Each time, a red eruption, resembling the nettle rash, had appeared over her entire body, and had disappeared again on the disappearance of the effects of the quinine. On the following day she took one grain, and again the eruption appeared. She then took a dose of Coxe's southern tonic, and this was followed by like effects. She then sent for the doctor. He gave her a purgative, and in a few hours followed it by six grains of quinine, with a small portion of the pulv. Jalap. comp. None of the unpleasant symptoms before mentioned followed this dose. In a few hours he gave her five grains more, and repeated this dose three times afterwards, without again noticing the eruption. He thought that the purgative that he had premised had removed the cause which produced the eruption.

The Society, after the transaction of some unimportant business, adjourned.

GEO. A. KETCHUM, Secretary.

III.—*Nux Vomica in Epidemic Dysentery.*

Many of the profession seem to entertain prejudices against the internal administration of nux vomica, and its preparations in diseases, although some of the first names among the faculty laud its virtues in dysentery and other enteric affections. In an obstinate case of dysentery, which had resisted the best directed efforts of the writer and his colleague, *strychnine* in small, but oft repeated, doses, completely changed the condition of the patient, and effected a cure. The extract of nux vomica, either with or without any of the narcotic extracts, is an admirable remedy for the bowel affections of children. If an anodyne be required, combine with it the extract conii, belladonna, or hyosciami. We were induced to call the attention of the young practitioner to the therapeutic virtues of the nux vomica in enteric affections, from noticing the report of *ten cases of epidemic dysentery*, in the May number of our Charleston contemporary, successfully treated by this medicine, in the hands of Dr. W. M. Cornell, of Boston. The disease was epidemic, and resisted all the usual remedies, when Dr. C. was led to try nux vomit. He gave it in powders, seven grains, thrice daily to adults, diminishing the dose according to age. *Not a patient, to whom this medicine was administered, died.* The only *cathartic* medicine given, was teaspoonful

doses of *bitartrate of potassa*, and this only in a few cases. Dr. Cornell also had an attack of the disease, and was cured with the *nux*. Let the remedy be put to the test, and its merits determined. [Ed.]

IV.—*The St. Joseph's Hospital, near Philadelphia, Pa.*

This Institution, recently chartered by the State Legislature, is designed to receive and accommodate sick persons, whose limited means will not justify the usual expenses incurred during a spell of sickness. There are many individuals and families, in all of our large cities, who, although too proud and high-minded to seek charity in our public hospitals, yet when disease overtakes them, they are unable, partly through the loss of time, to meet the usual expenses consequent upon a spell of sickness. The St. Joseph's Hospital is designed to receive such patients, and those who can afford to pay a moderate sum, say from two to three dollars per week, for nursing, medicines, medical attendance, &c.

This Institution will occupy middle ground, between a public charity and our private hospitals, where the charges are too high for the sick of moderate means, especially at the north. Under the management of such men as Drs. Horner, S. Jackson, A. Stille, and W. V. Keating, the St. Joseph's Hospital must prosper.

V.—*Cholera in Clarksville, Tenn.*—Dr. Haskins, of the above town, gives an interesting account of cholera, and its treatment, as it appeared in *Clarksville, Tenn.* His article was published in the July number of the *Louisville Medical Journal*, and in it he states that the disease made its first appearance there on the 16th of March, and disappeared on the 29th of the same month. During this time, sixty-six cases and eighteen deaths were reported to the Board of Health. Nothing like contagion had anything to do with the introduction and spread of the disease in the town. But two post mortems were made, and the notes of these are worthless, because only the right lung in one case, and the brain in the other, were examined.

The treatment adopted was calomel and opium, and in some instances, camphor and quinine, five grains of each, at one dose. To relieve the cramps, spasms, and sustain the system, Dr. Haskins gave,

R—Chloroform, - one drachm,

Mucil. Gum Arab., seven “

Of this, a teaspoonful, in an ounce of ice water, was given every fifteen or twenty minutes, and rarely failed both to relieve and cure the patient.

VI.—*Strychnine, a prophylactic against irregular Malarious Diseases.*—In an original article, written by Dr. Kirtland, and published in the July number of the *Ohio Medical Journal*, we notice some curious observations on “irregular malarious diseases.” These affections are “dependent upon an impairment of the nervous centres, the evidences of which are exhibited in certain trains of symptoms of the nervous extremities. Many of these cases may be checked, even arrested, for a time, by quinine, Fowler's solution, and the like; but they are liable to return at uncertain periods, and to afflict the patient for an indefinite time. Strychnine has been proposed, not only as a remedy in such cases, but as a means to prevent their recurrence in future. The following is the formula recommended by Prof. Kirtland:

R — Strychnine, crystals, - xvi grs,
 Aqua, - - - - -
 Alcohol, - - - á á vii ounces.
 Acid acetic, - - - - vii ounces.
 Comp. Tinct. Cardam., i ounce. M.

Dose, twenty to thirty drops, three times daily; the dose may be increased. The virtues of strychnine have not as yet been fully developed. The homeopathic doctors are much better acquainted with the therapeutic qualities of this article, than we are willing to admit.

VII.—*Rupture of the Ductus Communis Choledochus.*—The July number of the *Buffalo Medical Journal* contains an extraordinary case of rupture of the common bile duct, reported by Dr. Parker. The patient was a harness maker, age not given, was attacked with pain in the gastric region, at first supposed to be nervous. He was vomited by a Thompsonian, which increased the pain and distress. Symptoms of peritonitis soon came on, and at the expiration of twenty-eight hours, the patient expired. On dissection, the peritoneal cavity was found filled with serum; intestines agglutinated, and other evidences of peritonitis. The right lobe of the liver was enlarged, indurated, and of a dark, almost black, color. It was adherent to the diaphragm, ribs, and duodenum; the adhesions to the latter had been torn up, and had involved the common duct, which was torn across about half way between the union of the hepatic and cystic ducts, and its entrance into the duodenum." The gall bladder was, of course, empty, its contents having escaped into the cavity of the abdomen, producing peritoneal inflammation and death. The author, who reports this case, attributes, we think justly, the rupture of the common bile duct to the violent action of the emetic administered in this case, as it would be difficult to trace this sad accident to any other cause.

VIII.—*The Western Journal of Medicine and Surgery.* Error therein corrected.—The June number of this excellent journal, in its comments upon some of the editorials contained in the *N. O. Medical and Surgical Journal*, for May, 1849, remarks, that "Dr. Crossman furnished the following table, &c., of deaths." Now, be it known to the editor of our estimable contemporary, that A. D. Crossman, Esq., is the popular Mayor of the city of New Orleans, and is, by virtue of his position, *ex officio*, President of the Board of Health. He assures us that he never saw a green room, and is unwilling to assume titles and honors that do not belong to him. Again, on the next page, the editors, in commenting on the practice pursued by Dr. Fenner, of this city, in cholera, quote our remarks upon the calomel treatment, as adopted by J. J. Ker, of this city, and credits them to Dr. Fenner.

ST. LOUIS, May, 21st, 1849.

(To the Editors of the Western Lancet.)

Gentlemen,—Will you be good enough to state, in the next number of your Journal, that during the late destructive fire, which well nigh consumed our entire city, the office at which the *St. Louis Medical and Surgical Journal* was printed was destroyed, and with it all the type, manuscript, back numbers, and

other material of the Journal. The next number was to have been issued in a few days. At present, everything is in confusion; but as soon as we have an opportunity of looking around, other arrangements will be made, and the work commenced again with as little delay as possible. In the mean time, we take his method of informing our readers of the causes of our suspension, and to bespeak their kindly indulgence. We would also be gratified if other Journals would make the same announcement.

With sentiments of respect and esteem,

I am, gentlemen, your obedient servant,

W. McPHEETERS.

Therapeutic effect of Oleum Jecoris Aselli and Prunus Virginiana, Phthisis Treated—Recovery.—In Sept., 1848, Mr. F. F. of B———, called on me for medical advice. He was twenty-two years of age—had been afflicted with a severe cough for three months—had laryngitis and every diagnostic symptom of phthisis in the right lung. I prescribed for him Ol. Jecoris Aselli, three table-spoonsful a day, and com. tinc. opii 2 arachms, with a strong decoction of Prunus Virginiana. Being fond of the oil, he took the full amount, and, the latter part of the time, six ounces of it a day. He rode on horseback every day. The larynx was touched daily for two weeks with a solution of nit. arg. 40 grains to the ounce of aqua distillata. In six weeks he had gained twelve pounds of flesh, and was free from all his phthisical symptoms. He has had no return of them since. Whether this was one of those cases which would have come under the denomination of Laennec's Spontaneous Cures, or like the late Dr. Parish's case in Philadelphia, where *puckerings* or *fistulous* cavities will be found in the lung upon post mortem dissection, I will not determine. That it was a case of Phthisis, I have not the least doubt. I would merely suggest, that a combination of these two agents, the cod fish liver oil and the wild cherry bark, may be more efficient than we have heretofore supposed, and may be worthy of a trial in all cases.—*Charleston Medical Review.*

THE MEDICAL AND SURGICAL JOURNAL.

VOL. VI.] NEW ORLEANS, SEPTEMBER 1, 1849. [NO. 2.

Health of the City, &c.—We are pleased to announce the almost entire disappearance of cholera from our City ; the deaths reported from this disease, for the week ending the 18th of August, 1849, being but two. Notwithstanding the alleged insalubrious situation of New Orleans, we have reason to rejoice that epidemic cholera has been much less fatal in this, than in many other cities of the Union, reputed to be much more favorably located in regard to public health. We could instance Cincinnati and St. Louis, both handsomely situated upon a graduated plain, and free from humidity and all sources of malaria and miasmata. Far from exulting over our good fortune, we can but deplore the fate of the above-mentioned cities, and sincerely sympathize with them in the sad bereavements to which they have been subjected. We can but believe that much of this difference of mortality between our city and the above two, may be ascribed to the moral courage, the self-possession, the truly heroic conduct of a large portion of our population, when an epidemic visits our city. The announcement once made, and the first shock over, each one arms himself for the combat, and goes forth to the discharge of his daily duties, watching, in the mean time, the first symptoms of the disease.

Besides, our citizens are accustomed to an occasional epidemic, and this fact has doubtless served to shield them against the predisposing influence of fear and other depressing passions ; hence, many, perhaps, escaped an attack of the disease. Since our *July* publication, the cholera has continued to diminish, in accordance with those great laws which govern epidemics, and for the last five or six weeks, our city has enjoyed an exemption from sickness of every kind, almost without a parallel in any large city, either in this country or in Europe. To furnish conclusive evidence of this fact, we continue, from our preceding numbers, a statement of the interments published weekly by the Board of Health.

				<i>Yellow Fever.</i>	<i>Cholera.</i>	<i>Total.</i>
Deaths for the week ending	June 23d,			47,		118.
"	"	"	30th,	31,		113.
"	"	"	July 7th,	14,		101.
"	"	"	" 14th,	4,		98.
"	"	"	" 21st,	2,		70.
"	"	"	" 28th,	2,		66.
"	"	"	August 4th,	1,	1,	86.
"	"	"	" 11th,	6,	0,	117.
"	"	"	" 18th,	2,	2,	106

By adding the one hundred and three deaths from cholera, above stated, to the three thousand five hundred and forty-three, previously recorded, will make the total deaths in this city, from the *first* death to the *last*, that is, from the 18th of December, 1848, to the 18th of August, 1849, 3,646, exclusive of a few cases carried out of the city for interment. Now, let us compare these figures with the mortality in St. Louis, a city with less than one half the population of New Orleans. From the daily prints of the former city, we learn that the interments from cholera alone, in the St. Louis Cemeteries, from the 23d of April to the 6th of August, a little over *one hundred days*, reached 5,989! And this extraordinary mortality occurred in a city of less than 60,000 inhabitants.

How does this compare with the mortality in this city? The cholera prevailed in New Orleans, from the 13th of December, 1848, up to the 18th of August, 1849, over *one hundred and eighty days*, in the midst of a population, numbering at least 150,000, in a climate and locality, erroneously supposed to be the very abode—a hot-bed for the development and spread of epidemic and endemic diseases! In comparing the mortuary records of the two cities, we do not intend casting any censure, either upon the Physicians or Municipal authorities of St. Louis; the former we know to be learned, skillful and diligent; the latter, we are informed, did every thing in their power to cleanse and disinfect the city. But little was or could be done to protect New Orleans against the spread of the pestilence, as the rain fell, a greater part of the time, almost daily, engendering a state of things, as was believed, eminently calculated to extend the ravages and quicken the violence of the disease. It was, then, our good *fortune*, rather than our *precaution*, that screened us from a more desolating visitation.

How little—how less than nothing, do we know of those occult—those inscrutable causes, which excite disease in our systems! But we must dismiss this subject, and trust that years will elapse before we shall have occasion again to recur to the subject of cholera.

From the foregoing tables, it will be observed, that the date of the *last* deaths from *cholera*, records the *first* case of yellow fever in our city. Thus, the termination of one misfortune is often but the commencement of another; but even in this change, we shall find some relief, as the latter disease has no terrors for any but the unacclimated portion of our population.

It is proper to remark, that the first case of yellow fever reported by the Board of Health, entered the Charity Hospital on the 28th of July, and died on the 30th, two days after admission. We witnessed the autopsy of this case a few hours after death, and the lesions found, were so characteristic of the disease, that out of ten or twelve medical gentlemen present, but two or three ventured to deny the reality of the disease. If a peculiar *icterode* hue of the cutaneous surface of the body, as also of the sclerotica; if a corresponding discoloration of the internal tissues, particularly of the *liver*, with several ounces of *black vomit* in the stomach, together with other striking lesions and abnormal changes, all combine in a single case, surely the intelligent physician cannot be in doubt, in forming a correct diagnosis. The week

succeeding the one in which the first case was reported, furnishes six others, some of which were seen by experienced physicians, in whose judgment we are bound to repose the utmost confidence.

Notwithstanding the report of the above cases, we see nothing in the type of our diseases, (which usually precedes our epidemics,) calculated to excite the least alarm. The cases are too sparse, and the season too far advanced, to justify any apprehensions of an epidemic of yellow fever, particularly if we should be favored, as for the last two or three weeks, with refreshing showers.

We ventured to predict, in a previous publication, that the inundation, so far from proving detrimental to the health of the city, might possibly remove many causes of disease, and thereby reduce the bills of mortality. Such has indeed been the fact, and we refer to the weekly record of deaths, in another part of this paper, to verify our prediction. During the latter part of July, and up to date, the heat has been quite oppressive, the thermometer ranging at, and even above, 90° F. for a short time during the day. Cases of *coup de soleil* have been of daily occurrence since the intense heat commenced.

A peculiar affection of the bowels, variously named "*enteralgia*," "*patent or dry belly-ache*," "*constipated colic*," and the like, has recently made its appearance in our city in the last two or three weeks. As it is a singular affection, and similar in some respects to *colica pictorum*, it may be well to describe it, and point out the difference. In the May number of this Journal for 1849, a very graphic and accurate description of the symptoms, &c., of this disease, is given by Dr. Ashbel Smith, of Galveston, Texas, and Dr. Bowers, of Brazos Santiago. The former of these writers describes the most prominent symptoms, as severe abdominal pains, with obstinate constipation, general uneasiness, more or less anxiety, with great muscular prostration; the disease was seldom attended with fever. He states that all the above symptoms subsided, and the patient convalesced on obtaining free, copious fecal bilious discharges.

His treatment consisted in free cupping over the abdomen, general bleeding, calomel and opium, followed by castor-oil and oil of turpentine and warm baths. Dr. Smith witnessed three deaths from this disease in Galveston; all were old residents of the place. A post mortem examination of one case revealed a high degree of injection of the *omentum*, glued in some places to the intestines, and at these points, the intestine was ulcerated and perforated. In this case, death took place suddenly. Dr. S. states that this disease was not known in Galveston, prior to 1847. Dr. Bowers, who saw and treated the disease at Brazos Santiago, says the symptoms were severe pains in the abdomen, being partially relieved by pressure; obstinate constipation; bilious vomitings; acid eructations; great restlessness; loss of appetite, and great wakefulness. The patient's mind was despondent; the pulse generally natural, occasionally it was full, hard and tense. Sometimes they had considerable fever; the majority had no vascular excitement. Dr. B. describes the eyes of the patient suffering from this disease, as peculiar—as "red, swollen, and resembling those of a drunken person." Dr. Bowers treated the disease with calomel, opium, morphine, and

the purgative oils. He states that *blood-letting* ad *deliquium* never failed in a single instance, in his hands.

He gave quinine after convalescence was established, to prevent relapses, and always, with one exception, successfully. About the middle of August, 1848, the colic epidemic ceased, and yellow fever commenced. As soon as the latter disease passed away, the former recommenced, and disappeared in November.

The above description of the "colic" at Galveston and Brazos, corresponds with the symptoms of the disease now prevalent in this city. It is manifestly the same affection, and the same treatment is generally pursued here, and suffices to arrest the disease. Efforts have been made to trace the origin of this disease to lead, but thus far, we have failed in every instance. Bar-keepers are said to suffer particularly with this disease; four or five cases of the "colic," of this class of individuals, are now in the Charity Hospital, under treatment. As far as our observations and inquiries have extended, we have not been able to trace the disease to any particular cause, or to ascribe it to any kind of occupation. Without regard to persons or localities, it attacks a few individuals in different parts of the city, and presents very nearly the same, or similar symptoms, in all cases. In about half the cases, the pulse is excited and the skin rather hot; the other half presents neither heat of surface nor excitement of the pulse—the latter, we have sometimes found as low as 50 beats to the minute. The abdomen, unlike cases of *lead* colic, is flaccid, soft and free from all distension. The pains in the bowels, with which the patient is tormented both day and night, (worse at night,) are considerably relieved by pressure. Obstinate constipation characterises almost every case and stage of this disease.

From some of our oldest practitioners we learn, that the same, or a similar colic, prevailed in this city twelve or fifteen years back; since that period, a few sporadic cases are met with, during nearly every season. They were, however, too rare to attract special attention. It seems to be a disease peculiar to hot climates, as nothing of the kind has been witnessed in northern latitudes. The disease is evidently of a *neuralgic* character, as shown by many of the symptoms; such, for example, as absence, generally, of much febrile excitement; the relief of the abdominal pains, afforded by pressure; the character of these pains, being paroxysmal, coming and going at longer or shorter intervals, &c. When the age, strength and pulse will justify depletion, free cupping over the abdomen must be practiced; this must be followed by an anodyne, either alone or combined with calomel. If the disease does not yield, the calomel and opium must be continued until ptyalism is produced, when in almost every case, the disease yields, and the patient enters into convalescence. It is bad practice to attempt, by drastic purges at the commencement, to overcome the constipation; these must be preceded by local or general depletion, notwithstanding the slow and regular pulse, and the soft and cool skin, provided the subject is young and robust, and the abdominal pains violent, and the constipation obstinate. Under these circumstances, anodynes (to speak paradoxically) become mild purgatives, for by soothing the nervous

irritation and relaxing the spasmodic and irregular action of the muscular coat of the alimentary canal, regular peristaltic motion is established, and mild laxatives will suffice to empty the primæ viæ; whereas, to crowd the stomach with hydragogues and drastics, not only aggravates the existing nervous irritation, but also augments the irregular muscular action, and thereby adds to the obstinacy of the constipation.

The *first* indication, is then, clearly to relieve the abdominal pains; the *second*, to overcome the constipation, and the *third*, to restore the healthy secretions of the gastro-enteric mucous membranes, and the chilopoietic viscera. All these may be accomplished by the remedies already pointed out, unnecessary to enumerate in this place.

CIRCUS STREET INFIRMARY,

CONDUCTED BY A. J. WEDDERBURN, M. D., AND W. H. WILLIAMS, M. D.

Extraordinary case of Hypertrophy of the Scrotum and Prepuce.—Operation—The parts excised, weighing over two pounds and a half.—Recovery.—Operation performed by Prof. Wedderburn, and reported by Dr. Williams.

Negro man John, aged about thirty-five years, was admitted into the Circus street Hospital, in May last, presenting the following appearance: The penis and scrotum enlarged to a an enormous extent; the former of which, in its general appearance, resembling an elephant's trunk, about ten inches long, four of which was the prepuce; its circumference being in proportion to its length. The scrotum was immensely large, and its surface, together with that of the penis, was very irregular, full of lumps, white pustules and small openings—the whole surface having somewhat the appearance of a sieve.

There was no opening externally, communicating with the mucous membrane of the prepuce, which stood at almost right angles with the main body of the penis, and which resembled very much the coronal gland; so much so as to be mistaken for that part. From the patient's account, it has been three or four years since he was able to pass his water through the urethra, or even at all, without pulling off his pantaloons and straining for at least half an hour; the water escaped in drops, from different parts of the penis and scrotum. More or less matter was constantly being discharged, the tissues being much indurated as far up as the crest of the pubis, and the hypertrophied condition of the parts, rendered the patient almost incapable of walking across the room; in consequence of which, it was thought advisable to remove the diseased parts, by excision.

Dr. Wedderburn commenced the operation by making a longitudinal incision the whole length of the dorsum penis, and nearly as high up as the crest of the pubis; the skin and cellular tissues were then removed, exposing the membranes covering the spongiosum and cavernosum penis. The testicles were then exposed in a like manner, the raphe of which was almost cartilaginous. In dissecting off the parts,

we discovered a number of little sacs containing pus. As mentioned before, the external opening of the prepuce was entirely obliterated and infiltration of urine had taken place very extensively. Considerable hemorrhage took place, but no ligatures were necessary. The patient, being completely under the influence of chloroform, appeared to suffer very little during the operation. The raw surface was bound up in a dry linen cloth and an anodyne administered. He slept very well for two or three hours, and then made water with perfect ease. The patient continued to do well with cold water dressings, until a month since, when the parts appearing to enlarge very fast, the surface was penciled with Iodine. The history of this case is very obscure. According to the account of the boy, which was by no means a very clear one, about ten years ago, he had some shooting pains about the parts, and soon afterwards discovered that one side of the scrotum was enlarged, but not sufficiently to attract much attention; this, however, in the course of three or four years, became so troublesome that he had to give up sexual intercourse, and then he made known to his master, the condition he was in; and notwithstanding he had been under the treatment of eminent surgeons, his condition became worse until the operation. My opinion is that the hypertrophied condition of the parts was brought about by the prepuce being entirely closed and infiltration of urine taking place, a continued source of irritation was kept up producing the condition I have endeavored to describe. The patient confesses that he passes his water with greater ease now than he has for several years, and from the circumstance of the glans being proportionably smaller than the other parts of the organ, I am inclined to think it a case of congenital phymosis. The case is now nearly well, yet the parts will always be more or less indurated and enlarged from the cicatrization.

A somewhat similar case to the one mentioned above was that of a gentleman admitted into the hospital in July. He was suffering with a serious infiltration of urine into the cellular tissues from a contracted condition of the prepuce, producing much enlargement of the penis, indeed so contracted was the prepuce that the smallest sized probe could not be introduced. This gentleman had congenital phymosis which had always been an impediment to the free passage of his urine, more particularly so after an erection, which was always attended with pain and prevented all sexual intercourse.

The mucous membrane of the prepuce in this case adhered so tightly to the glans that it was with great difficulty that a dissection could be made without wounding the latter; in fact, so contracted was it that it was supposed to be adherent to the glans around the meatus. The coronal glans was but little larger than a hazel nut, and very hard.

The usual operation, or that recommended by Ricord, could not be performed in this case, in consequence of the swollen condition of the parts. The plan pursued was to make a longitudinal incision in the prepuce and dissecting with great care until the glans were exposed, and the flaps on each side then cut off. Chloroform was used with excellent effect.

The gentleman remained in the hospital eight or ten days with the

usual cold water dressing and improved so rapidly as to be enabled to leave at the expiration of that time.

The late Professor J. Harrison.—Some months since, the *Physico-Medical Society* of New Orleans, appointed Prof. James Jones to deliver a eulogy upon the life and character of the late Dr. John Harrison. On the evening of the 11th of August, in the Medical Hall of the University of Louisiana, and before the Fellows of the Society, Dr. Jones performed the melancholy duty which had been assigned him. His address was an eloquent tribute of friendship to the rare merits of his late distinguished colleague. We shall endeavor to publish in our next number, either a part, or the entire address.

With sincere regret, we announce the death of Mr. *T. D. Lillie*, for the last fifteen years a resident of New Orleans, and a gentleman highly esteemed for his many excellent qualities and correct deportment. He expired in New York, whither he had gone for his health, on the 30th June last, aged 53 years. For the last ten years, he kept a meteorological journal in this city, from which we have published abstracts in this Journal. His successor will continue to furnish us the usual meteorological table.

ABSTRACT OF A METEOROLOGICAL JOURNAL FOR 1849.

By LILLIE. AT THE CITY OF NEW ORLEANS.

Latitude 29 deg. 57 min. Longitude 90 deg. 07 min. west of Greenwich.

WEEKLY.	THERMOMETER.			BAROMETER.			Course of wind.	Force of wind. Ratio 1 to 10	Rainy days	Quantity of Rain. — Inch's
	Max.	Min.	Range	Max.	Min.	Range.				
1849.										
June	16 91 0	74	17 0	30 19	30 06 0	13	E	3 1-4	3	0 300
"	23 89 5	75	14 5	30 21	30 09 0	12	NE	2 1-2	3	1 740
"	30 90 5	73	17 5	30 12	29 93 0	19	ESE	2 1-4	4	1 385
July	7 92 5	76	16 5	30 15	29 97 0	18	E	2 1-4	6	3 400
"	14 91 0	72	19 0	30 16	30 03 0	13	E	2 1-4	7	8 850
"	21 89 5	73	16 5	30 11	30 00 0	11	ESE	2 1-2	6	2 015
"	28 90 0	73	17 0	30 16	29 98 0	18	SSE	2 1-2	6	3 190
August	4 91 5	73	18 5	30 17	30 08 0	09	S	2 1-4	2	1 110
"	11 92 0	75	17 0	30 15	30 00 0	15	SW	2 1-4	1	0 080
"	18 91 0	72	19 0	30 18	30 04 0	14	E NE	2 1-4	5	1 325

Semi-Annual Report of the Principal Diseases admitted into the New Orleans Charity Hospital, for the first term of 1849.

Diseases.	JANUARY.			FEBRUARY.			MARCH.			APRIL.			MAY.			JUNE.			Total for the six months.			
	Admiss.	Disch's	Deaths.	Admiss.	Disch's	Deaths.	Admiss.	Disch's	Deaths.	Admiss.	Disch's	Deaths.	Admiss.	Disch's	Deaths.	Admiss.	Disch's	Deaths.				
Abscess, (various,)	11	18		17	17		12	13		13	15		12	14		11	13		76	90		
Cholera, (Asiatic,)	311	225	232	120	49	81	403	123	243	193	162	123	261	102	180	112	30	105	1400	691	964	
Dysentery,	16	14	10	19	8	4	23	13	6	19	6	9	23	17	12	27	13	6	127	71	47	
Diarrhœa,	79	67	6	39	53	6	66	48	10	176	40	7	373	258	8	163	184	10	896	650	47	
Delirium Tremens,	36	26	3	16	12	1	11	10	1	18	11	6	21	22	2	17	12	2	119	93	15	
Debility,	10	7		33	24	2	21	20		26	9		22	37	3	17	12		119	100	2	
Enteritis,	2	4	1	7	3		11	7	1	15	12		9	13	3	7	8		50	47	7	
Fever, Intermittent,	109	105		114	103		138	114		117	64		69	63		155	75		702	524		
“ Remittent,	5	6		10	6		13	8		16	16		30	28		49	42		123	106		
“ Typhus,	79	47	28	127	46	25	193	151	34	140	64	20	128	142	27	65	96	14	732	549	148	
Inebrietas,	8	8		10	7		6	7		10	10		3	5		4	4		41	41		
Phthisis, Pulm.,	29	12	13	20	9	16	20	4	14	28	9	14	17	13	15	16	9	7	130	56	79	
Pregnancy,	13	15		15	7		15	4		18	5		16	4		11	3		88	38		
Parturition,		6			3			12		10	10			4								
Rheumatism,	48	45		48	59	1	32	49		45	25		25	35		17	12		215	225		
Syphilis,	38	18		22	22		22	37		23	19		25	17		25	32		155	145		
Ulcers, (on leg.)	47	47		40	30		25	38		21	16		31	26		22	40		186	187		
Varicella Confuens,	2			9	1	4	13		9	17	5	4	9	16	1	9	7	5	59	29	23	
Various Diseases,	226	90	23	260	210	26	276	283	34	212	178	26	160	168	18	225	199	17	1359	1128	144	
TOTAL,	1069	760	316	926	669	166	1318	944	352	1107	676	209	1234	984	268	941	794	166	6595	4827	1477	

☞ We are indebted to J. V. Loubere, the intelligent and polite assistant Clerk of the Charity Hospital, for the subjoined valuable and interesting reports of the Hospital.—[Ed.]

CHARITY HOSPITAL REPORTS.

Monthly Report of Charity Hospital—June, 1849.

Admissions, Males,	-	-	-	-	-	723
“ Females,	-	-	-	-	-	218—941
Discharges, Males,	-	-	-	-	-	598
“ Females,	-	-	-	-	-	196—794
Deaths, Males,	-	-	-	-	-	140
“ Females,	-	-	-	-	-	26—166

JULY, 1849.

Admissions, Males,	-	-	-	-	-	773
“ Females,	-	-	-	-	-	261—1034
Discharges, Males,	-	-	-	-	-	669
“ Females,	-	-	-	-	-	194—863
Deaths, Males,	-	-	-	-	-	67
“ Females,	-	-	-	-	-	31—98
Total number remaining on the 1st of July,	-	-	-	-	-	781
“ “ “ “ 1st of August,	-	-	-	-	-	866

OBSERVATION 1. On the 30th of July inst., a man died of the yellow fever, it being the first case for this year. Since that day five new cases have died in the Hospital.

In 1847, the first death from yellow fever occurred on the 7th of June, and in 1848, on the 13th of June.

2. From the 1st to the 22d of August inst., there have been only 79 deaths in the Hospital, of which number five were yellow fever cases; whilst in the year 1847, during the same month, and for the same length of time, there had been 338 deaths, of which 285 were of yellow fever.

SEMI-ANNUAL REPORT OF THE CHARITY HOSPITAL FOR THE FIRST PART OF 1849.

Months.	Admissions.			Discharges.			Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
January,	851	218	1069	606	154	760	267	49	316
February,	737	189	926	552	117	669	138	28	166
March,	1014	304	1318	717	227	944	320	32	352
April,	806	301	1107	476	200	676	177	32	209
May,	901	333	1234	716	268	984	240	28	268
June,	723	218	941	598	196	794	140	26	166
	5032	1563	6595	3662	1162	4824	1282	195	1477

THE
NEW ORLEANS
MEDICAL AND SURGICAL
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DEVOTED TO MEDICINE
AND THE
COLLATERAL SCIENCES.

EDITED BY
A. HESTER, M.D.

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TO READERS AND CORRESPONDENTS.

Our correspondents will please send in their communications for the *January* number of the Journal. We again request them to condense as much as possible. Short and practical papers are preferable to communications extended to a tedious length. Our aim is to be brief and to the point; and to this end we solicit the aid and co-operation of our friends.

We have received, besides our usual exchanges, several valuable Journals from abroad; also the following books and pamphlets for review:

I.—A practical treatise on Asiatic Cholera for the benefit of the public; it is issued in pamphlet form, from a work now being published, on diseases of the South. By Thompson McGown, M. D., Graduate of Transylvania University; member of the Lexington Medical Society and practitioner of the South. Philad., Grigg & Elliott. 1849. pp. 30.

II.—Annual announcement of the Medical Department of Franklin Medical College and Literary College of St. Louis. St. Louis, Mo., 1849.

III.—Valedictory address, delivered to the Class in the Medical College of Ohio, at the close of the session of 1848-9. By L. M. Lawson, M. D., Professor, &c. Published by the Class: Cincinnati, Ohio. (From the Author.)

IV.—Report on the Medical Department of the University of Pennsylvania for the year 1849; to the *alumni* of the school. By the Medical Faculty, Philadelphia, 1849. (From the Dean.)

V.—Catalogue of the Trustees, Faculty and students of the Medical College of the State of South Carolina—session, 1849. Charleston, South Carolina. (From Faculty.)

VI.—Medical College of Ohio. Annual announcement for the session, 1849-50. With a catalogue of students and graduates for the session of 1848-49. Cincinnati, Ohio.

VII.—Parturition, and the Principles and Practice of Obstetrics. By W. Tyler Smith, M. D., London Lecturer on Obstetrics in the Hunterian school of Medicine. Philadelphia, Lea & Blanchard, 1849. (From Publishers.)

VIII.—Report on the Practical operation of the Law, relating to the Importation of Adulterated and spurious Drugs, Medicines, &c. By M. J. Bailey. M. D., special Examiner of Drugs at the port of New York. (From Author.)

IX.—Report on the Cholera in Paris; published by authority of the French Government. Translated from the original and printed by recommendation of the Board of Health, and the Academy of Medicine of the City of New York. New York, Samuel S. & William Wood, 261 Pearl street. 1849. (From Publishers.)

X.—Address delivered at the First Annual Commencement of the University of Mississippi. By Hon. Alexander M. Clayton. President of the Board of Trustees, July 12th. 1849. Published by order of the Board of Trustees, Oxford, Miss. (From Author.)

XI.—University of the State of New York. Catalogue of the officers of the University and of the College, and annual announcement of Lectures. 43d session, 1849-50. (From Faculty.)

XII.—Lectures on the Diseases of Infancy and Childhood. By Charles West, M. D., Fellow of the Royal College of Physicians; senior Physician to the Royal Infirmary for Children; Physician—Accoucher to the Middlesex Hospital; and Lecturer on Midwifery at St. Bartholemew's Hospital. Philad., Lea & Blanchard. pp. 451, 1850. (From Publishers.)

XIII.—Medical Communications of the Massachusetts Medical Society. Vol. VIII—No. 1. Second series—Part 1. Boston, 1849. (From Society.)

XIV.—Hasting's Practice of Surgery. Lindsay and Blakiston, Publishers, 1849.

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ERRATTA.

On page 420, sixteen lines from top, read *through vastus externus*,
for "external border of vastus internus."

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

NOVEMBER, 1849.

Part First.

ORIGINAL COMMUNICATIONS.

I.—REMARKS on Cholera. *Its contagion—its animalcular origin, its mode of propagation, &c. &c.* BY WM. P. HORT, M. D., New Orleans.

Since the appearance of Epidemic Cholera in the United States in 1848 and 1849, we have been favored with various theories as to its origin, its nature, its mode of propagation, and the proper way to treat it. But most of these writers have been too local in their observations, too limited in their general views, and too special in their mode of treatment.

Cholera morbus is a disease that has been long known to the medical profession; and its name imports sickness produced by bile. This nomenclature is proper, because that form of disease is always characterized by bilious vomiting and purging, attended, in severe cases, with cramps and spasms.

It prevails ordinarily in the fall season, in all the temperate parts of Europe, and throughout the United States. It is not epidemic or contagious. Nothing, however, can be added to the able remarks of Sydenham on this subject.

In the epidemic cholera, the *absence* of bile is as much a symptom, as is the *redundancy* of it in the cholera morbus.* In fact in the epidemic cholera, the appearance of bile is ever considered as the har-

* Hence, Watson and others object to the term, as applied to the epidemic.

binge of convalescence; and with its secretion, the other secretions are speedily restored.

In the last annual report published by the Board of Health, the opinion was expressed, that the cholera of 1848 was indigenous in this city. This was repugnant to the feelings, and contrary to the opinion, of a majority of our citizens, and also to many intelligent physicians, whose views on the subject, although adverse, are entitled to great respect. The doctrine of importation was at that time decidedly in the ascendant, but from whence, how, and when it was imported, nobody was able to inform us.

Since that period, however, and during its onward career up the Mississippi and some of its branches, and along the southern shores of the great Northern lakes, while little or nothing has been said of its importation, various theories, purporting to account for its existence, have emanated from different points in its line of progression.

One writer thinks that the absence of electricity, or of a sufficient quantity thereof in the atmosphere of a neighborhood, is sufficient to account for the existence, malignity and mortality of the disease.

This state of the atmosphere is of common occurrence in all parts of the country. It is usually complained of as dull, oppressive, sultry weather, while the atmosphere is saturated with watery particles. It had prevailed occasionally, time out of mind, prior to the attacks of cholera in 1832 and 1833; and from that time until December, 1848, the same remark will hold good. It debilitates the muscular and nervous systems, and impairs mental energy. Under its influence, it is almost impossible to evolve the ordinary phenomena of electricity from the most efficient machines, even after they have been carefully dried and rubbed before a warm fire. In the mean time, the animal electricity is partially conducted from the body by the humid medium which surrounds it.

With the exception of the two periods spoken of, as visitations of cholera, no such result as cholera was produced by the very same condition of things for hundreds of years. But any intelligent citizen knows, as well as the experienced physician, what complaints or diseases are likely to appear under those circumstances; they are productive of influenza, rheumatism, or great aggravation of the same, (it already existing in the chronic form,) with various disturbances of the alimentary canal, such as might be anticipated from diminished vitality. Why, then, does not the want of electricity (or of the impulses that produce it) generate cholera on all such occasions? It should do so, if the aphorism be true, that like causes are followed by similar results.

The position, therefore, that the deficiency of electricity in the atmosphere is the cause of cholera, is untenable.

It will not be denied that the peculiar state of the atmosphere just described predisposes to the attack of cholera, or any other form of epidemic or endemic disease; but this predisposition has nothing to do with the actual cause of disease—that is altogether another question. In one of the north western medical journals, the absence of cholera in regions abounding with sulphur, as was affirmed but not proved, led to the conclusion that small doses of sulphur would act as a specific, when judiciously prescribed.

The first inquiry to be made is, whether it is a well established fact, that cholera has never prevailed in volcanic regions; for it is there that sulphur abounds. The greatest exportation of sulphur is from the kingdom of Naples, including Sicily. It is decidedly a volcanic country, with two of the most active volcanoes in the world—Vesuvius and Etna.

The interior of Mexico is another remarkable volcanic region—the whole valley in which stands the City of Mexico being supposed, by Humboldt and other scientific men, to have sunk down, during some great volcanic convulsion, from the level of the surrounding mountains, which abound in traces of ancient volcanoes.

The whole length of the Southern Cordilleras, extending from Guatemala to the southern extremity of South America, must also be considered a volcanic region, and perhaps the most extensive in the world.

We have abundant authority to invalidate the *assumed* fact. For so far from the cholera never having prevailed in volcanic regions, in 1831 it ravaged France and Spain, the north coast of Africa and *Italy*; yes, Naples, Palermo and other towns in Sicily.

It has also prevailed in the interior of Mexico throughout the volcanic regions. After passing into South America, it crossed the mountains, and passed off in a south western direction, necessarily including a large portion of volcanic region.

Watson remarks, p. 824, "Moving thus onward, as it did, in defiance of all natural or artificial barriers, under opposite extremes of temperature and climate, in the teeth of adverse winds, over lofty mountain chains, across wide seas, through hot, cold, moist and dry, in what manner, you will probably ask, was this wasting pestilence propagated?" This should make us very diffident in assigning any *local* or peculiar circumstance as the cause of the disease.

We have also been told that the granite regions are exempt from its ravages, while where the limestone strata abound, it is developed, aggravated and propagated. How can this opinion be reconciled with the foregoing quotation from Watson, which is now matter of recorded medical history?

No place is exempt from the visitation of this pestilence. Its malignity and its ravages, however, may be greatly abated, by stringent police regulations, as in the case of Boston, Philadelphia and other cities.

I shall next notice another strange idea that was advanced in the north west,* and received the sanction of two physicians, said to be eminent and distinguished members of the profession in that part of our country. I allude to Ozone and Ozonometers; the former, the supposed cause of cholera—and the latter, the means of detecting said cause; or, to translate more literally, the measure of the quantity of ozone.

This is a gaseous substance, composed of hydrogen and carbon. We are told that by saturating a piece of paper in a solution of starch and iodide of potash, the smallest quantity of ozone in the air may be de-

* In the Chicago Medical Journal.

ected by the discoloration produced by the free iodine. The word is derived from *ozo*, to smell. In Schrevelli's lexicon, we find the word *oze* translated "*fætor pedis*." The term *ozena* or *fætid* discharging ulcer in the nose, is derived from the same.

There is abundant room for error in this theory; as a *fact*, it is any thing but established. Although not constituent parts of the atmosphere, carbonic acid gas, and hydrogen as a constituent part of watery particles, are almost always, in a greater or smaller quantity, suspended in the air, sometimes nearer to, and at other times further from, the surface of the earth.

It must be rather beyond human ingenuity to calculate the decompositions and combinations that occur in the great laboratory of nature. Knowing that such chemical agents as we have just alluded, to exist in the atmosphere, it is not at all surprising that their presence should be recognised by an experienced chemist, whether combined or uncombined; but this by no means proves that carbon by itself, or hydrogen by itself, or that the two in any form of combination, can produce cholera, or any kind of malignant disease.

But there is something more than these two chemical agents in the atmosphere that surrounds this earth. In the meteoric stones, or aerolites, as they are often termed, are found feld spar, olivine, augite, native iron, and magnetic iron pyrites: also an alloy of nickel and iron, (*never yet found as a production of this earth*;) and this alloy often contains chrome, cobalt and manganese, though in very small proportions.

In addition to all this, we have magnetic and electric currents pervading the atmosphere; besides, probably, thousands of different terms of matter, and never ceasing impulses of motion, producing various and complicated polarizations.

After a severe thunder storm, I have detected in cistern water, ammonia, hydrochloric acid, sulphureted hydrogen and carbonaceous matter. With such a magazine of active agents, it is difficult to imagine why *two*, forming a substance, called by some German chemist ozone, should be selected and blazoned forth to the world as the cause of cholera. Moreover, it appears impossible, (even on the supposition that something called ozone is the cause of cholera,) that this agent should, without any possible reason that can be assigned, be generated over the greater part of the earth, in warm and cold climates, under the influence of a burning sun and where the earth is girded with ice and snow; on board a ship traversing the stormy Atlantic, or on the wild prairies of the west, which extend from the first diluvial lands in the valley of the Mississippi to the base of the Rocky Mountains.

With the foregoing brief observations, I pass over the most recent theoretical speculations as to the cause of epidemic cholera.

Is it *contagious*? By many persons, it is so considered; but probably from the want of due reflection and investigation. Watson, who is generally to be admired for his decision in a controversy of this kind, lamentably fails in his expressed opinion in relation to cholera. I can not quote all his reasoning on the subject; it would occupy too much room; he, however, sums up as follows: "My own creed respecting the cholera is, that it *was* contagious in the limited sense already ex-

plained, but that its contagious power was not very great; that a comparatively small part of the population of this country* at least was susceptible of its operation; and that few were in much danger of suffering from exposure to the physical cause, except under circumstances of predisposition. At the same time, I believe that a great majority of the cases of cholera were not attributable to direct contagion, but to the poison diffused through the atmosphere. There is nothing inconsistent in the supposition that this noxious matter travelled sometimes by its own peculiar powers, sometimes made use of vehicles."

Now, it puzzles some to conceive how these remarks, which to me are almost unintelligible, can be reconciled with those that follow: "This, I say, is my creed upon the vexed question of contagion. Respecting the special nature of the poison, I can only guess; **** I adverted, when speaking of the influenza, to what Dr. Holland has called the hypothesis of insect life as a cause of disease." "I shall not repeat the observations, I then made; but I would refer you, for much curious thought and information upon the subject, to Dr. Holland's very interesting essay. The hypothesis in question squares, more readily than any other that I know of, with the ascertained history of the disorder; with its origin, after an unusually wet season in Bengal; with its irregular but continuous migrations; with its dying away after a while, and its occasional and partial revivals. But still, remember that we are dealing merely with an *hypothesis*."

If it be merely an hypothesis, it is, according to this statement, decidedly the best, *since it squares, more readily than any other, with facts*. Dr. Condie, who superintended the republication of Watson's great work in the United States, observes, in a note which refers to what has been quoted: "During the prevalence of the cholera in Philadelphia in 1832, we closely investigated every fact calculated to throw light upon the question of its contagious or non-contagious character, and for this investigation, our position in the Board of Health, and as chief of a large hospital, afforded us ample opportunities—but we were unable to discover the slightest evidence of the disease having been in any one instance communicated from the sick to the well."

A close observation of facts in 1831 and 1832, in 1848 and 1849, leads me to the same conclusion.

Within a few years past, persons immigrating to this country from the north of Europe, have arrived afflicted with a typhoid or ship fever. The cases, when scattered, have not, in a single instance which has come to my knowledge, been communicated; nor have they proved fatal. In the Charity Hospital, where they were crowded to excess, there was created in the ward a focus of disease, or, in other words, a local pestilential atmosphere,—a few persons, as nurses, or patients previously in the ward affected with some other complaint, contracted the disease. But to that point its influence was limited.

Now, this case is very analogous to many others which may be observed throughout the southern country, or elsewhere, when *local* causes of disease exist.

* Great Britain.

If, when yellow fever is epidemic in this city, persons coming down the river, and visiting some friend in whose house there might be a case of the fever, should contract the disease, this would be cited by many persons, as it has been over and over again, as positive proof of the disease being contagious. But does not the same atmospheric cause which produces the disease in the unacclimated resident population, inflict it upon the visitor?

And so it is with cholera; it may be raging here or in any other city; persons coming from a healthy section of country, and exposing themselves to the influence of the atmospheric poison, would probably, in nine cases out of ten, contract the disease—but what has this to do with contagion? We may go into different vicinities all over the world, where nearly all the people may be sick with intermittent, or remittent, or bilious fever, of a mild or malignant character, and should we remain long enough, would in all probability contract the prevailing disease. We should not take it from any of the sick, but from the atmospheric cause which gave rise to the first attack of fever. The idea of contagion would not, in the case of the fevers just spoken of, occur to the most credulous and timid.

By reference to the pages of this Medical Journal, it will be seen that the most eminent English, French and German physicians commissioned by their respective governments to investigate the cause of cholera, and, from facts, decide the question of its being contagious, have, after a faithful performance of their duty, and laborious examinations in Europe, Asia and Africa, decided that it was not contagious. The question of the contagiousness of cholera is one of great importance, as it essentially involves the expediency or necessity of quarantine laws and a lazaretto.

If it were possible to protect the population of a city from the ravages of this terrible scourge by such measures, the competent authorities would be faithless to their trust, and richly merit the indignant censure of the community, should they be neglected. On the other hand, if it is not contagious, then the quarantine, &c., would be unnecessarily injurious to commerce and ship owners, and unjust, perhaps cruel, to the passengers and crew. A man might be detained who is hastening to see once more on earth a dying father, mother, wife, or child. And the credit of a merchant might be ruined by the detention; his actual presence being necessary to raise funds to meet some heavy pecuniary obligation. Of what avail to Russia were the numerous military detachments guarding every pass through the Ural mountains, or across the Wolga? The first appearance of the disease (I mean the cholera of 1832) was six hundred miles in the rear of the troops.

What advantage was derived from the strict quarantine established on our extended lake frontiers, when the cholera had crossed the Atlantic, and made its appearance in Quebec and Montreal? The very same result which occurred in Russia. It paid no more attention to the measures devised by the wisdom of man, than would the destructive hurricanes of the West Indies, the Simoon of the desert, or the typhons of the Chinese sea.

There is nothing like continuity in its progress; it strikes here and

there, desolating some plantations, towns, or cities, and passing over others, often intermediate with them, without any satisfactory or even plausible reason to account for the eccentricity of its movements. This well known fact is entirely at variance with the idea of the cholera being a contagious or infectious disease, or one even of a common or ordinary atmospheric origin.

Not long since, a report* on the subject of contagion, and the duty of governments in regard to it, was laid before the British Parliament, by a Board of Health, composed of the regular medical and surgical authorities of England. It is a very full examination of the long contested question whether diseases can be excluded by municipal regulations, within the control of sentinels and barriers; or whether all diseases known as infectious or epidemic have not, in fact, always a local origin, which may be controlled by proper agencies of prevention. The resulting inquiry is, whether it is not the duty of authorities to turn their efforts in the latter direction exclusively? The results arrived at are of high commercial importance, and pronounce strongly against all quarantine regulations.

The general result of the examination is—after having carefully examined what appear to be the best available evidence as to the facts on which the system of quarantine rests, having considered the report made to the Royal Academy of Medicine in France, and the written testimony of the most eminent professional and scientific observers and writers as well in Austria and America as in England, that the quarantine establishments in England, and every other country of which we have information, are wholly insufficient, even on the assumption on which they have hitherto been maintained, to prevent the introduction and spread of epidemic disease, that these establishments are of a character to inflict upon passengers extreme and unnecessary inconvenience, and to subject such of them as may be sick to increased, suffering and danger, while they maintain false securities in relation to the means of preventing the spread of disease.

They recommend the substitution of general sanitary regulations to ships in port, for the existing quarantine regulations, as far more effectual to extinguish the epidemic disease, afford better protection to the uninfected on ship-board, while it would relieve passengers and crews from grievous inconvenience, abate the motives for concealment of sickness, and for false representations as to its nature, greatly lessen commercial expenses, and remove obstructions to the free transit of goods and uninfected persons which the existing system of quarantine occasions.

It concludes by proposing the entire discontinuance of the existing quarantine establishments of the country, and the substitution of sanitary regulations. And again: In reply to the desire of the British government to know the opinion of the London Board of Health as to the efficiency of quarantine in relation to cholera, I shall here quote part of a letter addressed to the British minister on that subject.

“The General Board of Health would recall to your Lordship’s attention the mischievous operation of quarantine regulations on the

* It was published in one of the morning papers.

professional and public mind, in diverting attention from real measures of precaution, and fixing it on those which are purely imaginary. Dr. Christison says, "cleanliness and ventilation will dissipate any epidemic;" experience shows that he is right. But quarantine, by disregarding cleanliness and ventilation, by confining and congregating, instead of dispersing, infected persons, and by thus accumulating filth and foul air, creates and maintains the very conditions, which, if there be present the "*fomes*" of a pestilence, must give to it the utmost concentration and virulence.

From evidence, of which they have now laid before your Lordship a part, the General Board of Health beg to state that they have arrived at the conviction that the expense incurred by quarantine establishments is worse than waste of public money, and that the general experience of their inutility and their mischievousness justifies and requires their abandonment. They are also of opinion that it would be alike honorable and advantageous to Great Britain, to set the example to other nations of discontinuing for the future the enforcement of regulations which, in the judgment of all competent and disinterested persons who have paid attention to their operation, cannot be carried into effect without inflicting evils of a most grievous nature, without any compensating benefit whatever, and which had their origin in times when the nature of epidemic diseases, and the laws which regulate their rise and spread, were comparatively unknown."

The foregoing are *precisely* the opinions which I expressed and advocated in an article read before the Physico-Medical Society at the sitting of February 15th, and which was subsequently published in the New Orleans Medical Journal.

I was aware at that time that a great change of opinion on this subject had occurred in France, and that the leading journals in Paris had exposed the absurdity, and denounced the existence of quarantine laws and establishments; but I did not anticipate so speedy a change in Great Britain. It is, however, the more satisfactory, as demonstrating the power of truth over error and prejudice.

In the report of the committee of the Physico-Medical Society, to whom the article was referred, we find the following resolutions: "That quarantine laws, even should their existence be deemed necessary, are inadequate to the protection of a sea port of easy access; as Dr. Rush says, that a *still more rigid quarantine* called for in 1797 in Philadelphia failed to accomplish the purpose desired. In 1805, the same fact is affirmed by Dr. Rogers, the health officer at New York. In 1822, if imported, the system failed again at New York; and in this city it signally failed in 1820 or, 21, when a rigid quarantine was established at the English turn.

The Committee are therefore of opinion that quarantine laws are unnecessary and inexpedient for the protection of the city." The whole of the report from which the foregoing resolutions are taken, was *unanimously* adopted.

If cholera be not contagious, how does it spread? Admitting its local origin, at least in 1848, to have been in New Orleans, and which there is every reason to believe, since there is no proof of its being im-

ported, how can its spread over thousands of miles of country be accounted for, unless it was transmitted by contagion? We cannot for a moment suppose that the same local circumstances were every where present to produce it. We know to the contrary; for what similarity is there between the topography of that portion of the prairies on the route to Oregon and California, where the cholera has been very fatal, and the position of New Orleans? Nor can we believe that a pestilential atmosphere generated here could possibly be carried to such distant points without being entirely dissipated by the winds, or neutralized by dilution with a purer atmosphere.

Watson (page 825) observes, "The itch is contagious. The itch is produced by a minute parasitic animalcule, whose existence has, of late years only, been assured to us by the microscope. Suppose that these itch insects could fly, or were capable of being wafted through the air—they would then represent what is conceivable enough of the subtle exciting cause of cholera."

Dr. Watson admits, as we have seen, that the hypothesis of insect life as a cause of disease, squares more readily with the known facts in relation to cholera, and he tacitly admits that he has no better opinion to offer. Yet, he says that it is a mere hypothesis.

More than one hundred years ago, this opinion was indeed a mere hypothesis, but at present it rests on a strong foundation of facts, and is sustained by striking analogies. Some time ago Ehrenberg, dean of the Faculty of Medicine of Berlin, addressed to the academy of Paris an account of microscopic observations, which he had made on the atmosphere during the prevalence of cholera. He declares that he had made a catalogue of upwards of three hundred different forms of corpuscles, which float occasionally in the upper and lower atmosphere. Professor Riddell has observed that "miasmatic poisons, when applied to the animal system, generally require several days before the obvious development of any effect. This time, called the latent period, affords a strong argument in favor of the *organized* nature of the poison; for ordinary poisons never delay their action so long; whereas, if contagion consists of living corpuscles like the ova of insects, or the germs of plants, they would naturally require time for their development and multiplication."

After describing other experiments made by himself, and zealous and talented co-laborers in different parts of the world, all tending to the same conclusion, I remarked, in an article on the causes of disease published in 1846, that an experiment on snow water, by the same able professor, demonstrated the previous existence and remains of living germs, which had descended from the high regions of the atmosphere in conjunction with the snow; and that the experiment is interesting, because it shows how epidemics, such as the cholera, for instance, can travel over the world; and it also accounts, as well as the fact stated by Ehrenberg, for the disease appearing in some towns, cities, or countries, and leaving others untouched; as the living germs descended to the earth, or were borne up to the higher regions of the atmosphere. And there is no other way of accounting for the erratic and extraordinary course of epidemic cholera—baffling all human foresight and

calculation—when it last left the valley of the Ganges, and passed over the civilized world.

Amongst the experiments made by talented and zealous men in pursuit of scientific knowledge, I must here advert to what may be found in one of my previous articles—the experiments of Moscati and Boussingault, who detected organic matter in extremely small quantities in the noxious air that hovers over marshes. “Moscati, many years ago, suspended in the air, over the rice grounds of Tuscany, a globular glass filled with ice. An abundant deposition of dew took place, which, when collected, appeared to be pure limpid water. There was soon, however, an appearance of little flakes, possessed of properties peculiar to animalized matters, and finally, at the end of some days, the liquid putrefied completely. Other experiments are quoted by Prof. Riddell, detailed in a memoir read before the French academy of sciences, in 1834, by Boussingault, at Cartago in South America. In the middle of a swampy meadow, in every instance carbonaceous matter was detected in the dew, by the addition of sulphuric acid; results proving very clearly that in marshy places, during the precipitation of dew, there is an *organic matter* deposited with it.” Many other facts of the same kind might be here introduced, but I deem those already quoted quite sufficient to make the *mere hypothesis* of Watson better sustained than any other that I have heard, or read of. It is the *only one* that can satisfactorily account for the singularly irregular course or progress of the cholera. Heat and moisture operating on a rich soil will ever give rise to exhalations, which, if not absorbed by the leaves of trees or plants, will produce fever of some kind; but there is neither heat, nor moisture, nor rich soil on the rocky summits of a mountain ridge; and still less are such elements of disease to be found, where all exhalations from the earth are effectually suppressed by impervious coatings of ice and snow. Yet in all such situations, and under such different circumstances, the cholera has prevailed with equal fatality. Neither parallels of latitude, nor degrees of longitude stay its progress, any more than lofty ridges or alluvial plains. It disregards alike the extremes of heat and cold—heavy rains do not abate its virulence, nor does drouth mitigate its intensity. Regardless of all, it pursues the tenor of its way, until, in the course of nature, the cause of it is for the time being exhausted. Some insects can exist in various climates, and endure great extremes of temperature; others cannot, but are peculiar to certain locations and climates. So there are probably minute corpuscles or animal germs, of which some will retain vitality for a given time in very different climates, or only in one particular climate producing some kind of pestilence. The yellow fever region is circumscribed by known limits; while intermittent fevers, like cholera, prevail in every climate: on the banks of the Neva in Russia in 60° north latitude; or in the fens of Lincolnshire on the east coast of England six degrees further south; also, throughout all the low country of our southern sea board from the Chesapeake Bay to the Rio Grande.

There is another circumstance that greatly favors the animalcular theory. I mean the occasional prevalence of pestilential disease, where none of the ordinary causes of disease, as heat and moisture, and rich

soil, or any thing visible or appreciable to give rise to exhalations, can be seen.

When the yellow fever prevailed in New York in 1822, whole families were carried off by malignant fevers in the hilly and most healthy parts of New Jersey, where nothing like a fever had ever been seen before. And what is well worthy of remark, the intermediate country thickly settled remained healthy as usual.

From the time of Lancisi, malarial or miasmatic poisons, as they are called, have been generally referred to the decomposition of vegetable substances with a certain amount of heat and moisture. Watson, however, observes that very strong facts have been adduced to show that the decomposition of vegetable substances is only an accidental, though a frequent, *accompaniment* of the miasm, and not by any means an essential condition of its evolution.

If, then, the decomposition and putrefactive fermentation of vegetable matter is, of itself, a distinct cause of disease, and miasm another distinct cause, it may be well to inquire whence comes the miasm as a cause of disease in certain places.

We learn from Watson, who has concentrated the principal authorities on this subject, that in August, 1794, after a very dry and hot summer, the British army in Holland encamped at Rosendal and Oosterhooft. The soil in both places was a level plain of sand, with a perfectly dry surface, where no vegetation existed, or could exist, but stunted heath plants. It was universally percolated with water which, so far from being putrid, was perfectly potable. Here, fevers of the intermittent and remittent type appeared among the troops in great abundance. It is interesting to observe that the soil in Walcheren is precisely similar. Sir Gilbert Blane describes it as consisting of a fine white sand, and about one third part clay. It was a hot and dry summer also, that the British army suffered in that island from endemic fever, to a degree which Dr. Ferguson speaks of, as being almost unprecedented in the annals of warfare.

In the year 1809, several regiments of the same army in Spain encamped in a hilly ravine, which had lately been a water course. Pools of water remained here and there among the rocks, so pure that the soldiers were anxious to bivouack near them for the sake of using the water. Several of the men were seized with violent remitting fever before they could move from the bivouack the next morning.

In the instance before us, says Dr. Ferguson, of the half dried ravine, from the stone bed of which, (as soil could never lie for the torrents,) the very existence of vegetation was impossible, it proved as pestiferous as the bed of a fen.

Examples of similar facts might be multiplied to almost any extent. Now, whence comes the miasm in such cases? It can no more be detected than can the pestilential agent in the water of marshes, which has frequently been examined with the microscope, and analysed again and again. We have already seen that traces of animal germs have been discovered by an examination of the air in malarious districts, and why should not such constitute the poisonous agent? In fact, what other agent can be conceived of on the rocky summits of a

mountain ridge, or where all exhalations from the earth are effectually suppressed by impervious coatings of ice and snow? Yet under such circumstances, the cholera has been as fatal as in the valley of the Ganges, or in river bottoms, where heat and moisture are present, with rich soil and rank vegetation.

From the writings of Wilson and Goodsir, Bennett, Gruby, Carpenter, and many others, we know positively that animals and vegetables are subject to destructive epidemics occasioned by animal or vegetable parasites. The fact of such epidemics as the cholera and yellow fever limiting their ravages to an average period, while all local circumstances remain the same, is also strongly in favor of what Watson calls a mere hypothesis—the insect theory of disease. I have endeavored to show that it is based on undeniable facts, and sustained by strong analogies in the vegetable and animal departments. Moreover, it satisfactorily accounts for what would otherwise be incomprehensible, not only as regards cholera, but many other epidemic diseases.

Many eminent physicians in Europe, who have employed their time in investigating the causes and laws of great epidemics, incline to the animalcular theory, as being more explanatory of facts than any other. Some fully subscribe to it, both in this country and in Europe. The late talented and deeply lamented Professor Harrison, of this city, considered organic matter as the cause of yellow fever.

These animal germs, supposed to be productive of various diseases, are probably exceedingly more minute than what are called microscopic animalcules; hence, we cannot detect them with the most powerful microscope, although by certain chemical experiments, where great care and patience are required, the evidence of traces of animal matter is indisputable.

It may, however, be asked: If the epidemic cholera of 1848 was indigenous in this city, whence came the animal germs to produce it; and why should they have been presented only on that occasion?

Animal germs require a peculiar state of things to usher them into active existence. It is well known that some of the infusoria can remain for an indefinitely long time in a perfectly dry and seemingly lifeless condition. According to Lewenhoeck, water, or even moisture, revives them. All the functions of life may be suspended for *years*, yet without the destruction of the vital principle. It is stated in the Edinburgh Encyclopedia, that the wheel animalcules have been resuscitated from a state of dormant vitality, as many as *seventeen* times in succession.

We know, moreover, that immense numbers of minute insects are ushered into active life during the progress of the different fermentations.

I have, in a former article, stated that it is the opinion of Liebig that such insects result from pre-existing invisible animal germs. From their extreme minuteness, such germs as those of the infusoria, or others still more minute, could easily be raised for a season above the atmosphere and the currents of wind near the surface of the earth. Hence, we may explain what Watson observes of cholera, "it advances in the very teeth of adverse winds."

If the side of an apparently arid mountain be ploughed, plants will spring up which were never seen or heard of before in the neighborhood.

The seeds, from which they came, might have remained for ages beneath the surface, yet too remote to be able to germinate, until exposed to air, light, &c., by ploughing. We are informed that wheat that must have remained for two thousand years in the Pyramids of Egypt, germinated and produced the Egyptian wheat, when carried to England, and planted.

When forest trees are cut down, and the land, after being long cultivated, has become exhausted, none of the trees and shrubs that formerly grew there will appear: it will be entirely a new growth.

The foregoing facts appear to me quite sufficient to furnish satisfactory answers to questions, which at the first glance might seem to be perplexing and difficult of solution.

There is no reason why extremely minute germs of vitality, such as have been alluded to, should not exist in various parts of the earth wafted by winds from distant lands, yet remaining undeveloped until a rare and peculiar combination of circumstances might occur to start them into active existence.

It was observed in the last report of the Board of Health: "Probably since the time when the first paving was done in New Orleans, the streets had never been in so bad a condition as at the commencement of the month of December. The continued rain and the saturated state of the earth had rendered repairs useless or impracticable; the elements of fermentation and putrefaction accumulated fearfully in every direction, until the atmosphere was polluted with poisonous exhalations, in which a sickly acid smell* at times predominated, and which were pressed down near the surface in a concentrated state by the dismal fogs which shrouded the river and city in gloom.

Under such circumstances, it was apparent to every intelligent person that malignant disease of some kind or another was inevitable, unless the atmosphere should be purified by repeated frosts. But, instead of the much desired frosts, the weather became more and more oppressive; there were frequent and heavy rains, alternating with a damp and sultry state of the atmosphere.***** The highest weekly range of the thermometer is set down by Mr. Lillie at 79°; but there were days when the temperature was higher; on several occasions 80° were noted down, and even 84° were more than once reported on good authority."

Such was the actual condition of things; and one more favorable to the development of animal germs can scarcely be imagined.

Under such circumstances, we had every reason to anticipate pestilence, if experience and analogy are ever sufficient to produce conviction. What would be the nature or character of the disease, no one, with any degree of certainty, could predict. It might be yellow fever, or plague, or cholera, or typhus fever.

With the exception of the modifying influences of a higher civilization, of a better form of government, and stronger moral and religious restraints, what local circumstances of soil, temperature, climate, topography, humid atmosphere, and abounding filth have ever been described by European medical writers as productive of disease in the valleys of the lower Nile, and of the Ganges?

* Probably, the Septon of Børhaave.

Cholera then was, I firmly believe, the disease developed in this city last December by a combination of circumstances that perhaps never before occurred, and probably never will again be present. The germs of the disease may have often been abundant in this city, and may be so again, yet the peculiar circumstances necessary to develop the germs of vitality into active living entities may not again exist for a century, or even a longer period. Such living entities, *now* multiplying in the natural way, might be easily carried to distant points, leaving larger or smaller intermediate spaces, and produce cholera where there might be no local circumstance to account for its appearance.

As many object to the sudden appearance, for the first time, of an indigenous epidemic, I remark, that such a circumstance is by no means uncommon. Hippocrates and Thucydides pretended to trace the great plague in Athens during the Peloponnesian war to Egypt, for every epidemic was, in those remote days, supposed to originate somewhere in Africa.

Medical men have, for more than two thousand years, held on to this gratuitous opinion with singular tenacity, not exactly referring every epidemic to Africa, but to any other part of the world rather than where it really originated. This is the case to this day as regards epidemic cholera and yellow fever.

Now, every disease known to us must have originated in some part of the world at some particular time, since every thing of the kind must have had a beginning. If certain local circumstances produced it, why should not similar causes, operating in other parts of the world, be equally capable of producing it? Extensive alluvial bottoms or valleys situated on the banks of large rivers, in the same latitude, and at about the same elevation above the level of the sea; in short, with local circumstances nearly equal, as far as man can judge, might, *a priori*, be expected to give rise to the same, or nearly similar results. I have on former occasions endeavored to prove that all over the world, when *local* circumstances were nearly equal, very similar febrile diseases originated. The mere parallel of latitude is no test; no one would dream of finding the same diseases on the summit of Chimborazo, or other lofty peaks of the Southern Cordilleras, as those which prevail on the unhealthy coast from the Amazon to the Orinico.

To infer similarity of disease, we must consider, first, the parallel of latitude; secondly, the elevation of the surface above the level of the sea; thirdly, the nature of the soil; fourthly, the peculiar vegetation present or adjacent; fifthly, the climate, including all meteorological facts, so far as they can be ascertained; sixthly, the influence of government, so ably illustrated by Dr. B. Dowler, in his most interesting and instructive article on Vital Dynamics: nor must we neglect to study the composition of the population; their progress in civilization; in the arts and sciences; their morals, their religion, and their peculiar habits. Let us for a moment consider the peculiar circumstances in which Athens was placed prior to the breaking out of the great plague. Attica had been invaded and ravaged for the *fourth* time since the commencement of hostilities; the inhabitants, driven from their towns and villages, and carrying with them as much of their effects as possible,

took refuge in Athens, which in this way not only became exceedingly crowded with a disheartened or discontented population, but lumbered up with the baggage and effects of so many supernumerary persons. It was in the early part of the summer, when the weather must have been very warm. What would be the unbiassed judgment of medical men in such a case? Certainly, that a pestilence of some kind would be generated. The historian informs us that it first appeared in the Piræus, where the shipping lay, which was the lowest part of the city, and consequently, in all probability, the dirtiest and most crowded. Without going to Africa, I see elements enough of disease in this case to generate the plague. The plague appeared in London for the first time in 1593; again in 1603; also in 1625; in 1636, it again broke out in London; but in 1665, the epidemic, although it was its last appearance, was, of all that had preceded it, the most fatal. Although all who possessed the means of leaving the city fled into the country, nearly *seventy* thousand persons were destroyed by that pestilence alone, and when the city was not one third of its present size. The Rev. George Croly, a very learned man, and one of deep research, remarks, "the closeness of the streets, the crowding of the people, and the habitual disregard of ventilation must have fostered this dreadful disease. But they cannot account for its origin, for its direction, or its virulence. These were independent of man."

This writer does not speak of importation in the case, but he describes the very condition of things, which, according to the London Board of Health, is the cause of pestilence, and which may be removed by proper police regulations, and measures of hygiene. It is very curious reasoning, however, to state that the causes which *must have fostered* this dreadful disease cannot account for its origin.

All British historians and contemporary writers agree that the buildings in the old part of the city were very much decayed, that the streets were narrow, badly ventilated, abounding in that kind of filth most favorable to putrefactive fermentation; that the population was most unduly crowded in these old houses, &c.

Notwithstanding these facts, we are informed that it was traced to Alkmaar; in another instance to Ostend; and again, to Leyden. We are not told where it came from in the year 1665. One thing, however, is certain, and matter of historical record—the dreadful and extensive conflagration of the succeeding year, *which destroyed, or very much abated, all the nuisances complained of*, put an end at once, and for ever, to the visitations of that dreaded and sweeping pestilence.

The two foregoing illustrations, if taken in connection with the reports of the London Board of Health and of the British Commissioners, will sufficiently explain the position which I have endeavored to establish. There is yet another question, which it may be well to answer. Why do the poor, and the destitute, and the recently arrived immigrants from the North of Europe constitute the greater part of the victims of cholera? We are informed that in Europe and in the East, the ravages of cholera are chiefly confined to the low, narrow, badly ventilated, and filthy streets and lanes of large cities. *There* are almost invariably to be found, congregated in undue numbers, the poor, the illiterate, the destitute, the dissipated, and the miserable.

In the United States, in the last visitation of cholera, as well as in the first, the recently arrived and consequently unacclimated immigrants have been the chief sufferers. These persons generally arrive with the standard of vitality greatly lowered, their physical force much diminished, and their spirits depressed, by long confinement in the crowded hold of a ship, eating bad food, and breathing a foul and pestilential atmosphere. On landing, as might naturally be expected, they greedily devour large quantities of fruit and vegetables; this imprudence soon terminates in diarrhœa, and, if not promptly arrested, ends in a few days in a dangerous, if not fatal, collapse.

It is well known that the stronger and healthier the system, the fewer parasites will be found; while on the contrary, they abound most in weak and unusually debilitated constitutions. And this remark is equally true of man, the inferior animals and plants.

Persons who are native born, or who have been a long time acclimated, have gradually become habituated to local poisons, whether organised or inorganic, and hence easily withstand analogous or kindred ones that may occasionally visit the section of country in which they reside. Besides, experience has taught them how to regulate their diet and habits according to the exigencies of the climate, and variations of the seasons. They are therefore better prepared to resist disease. There are exceptions, which, however, may almost always be traced to fear, or imprudence in diet, or forfeiture of immunity by continued dissipation, and, above all, to the total and wilful neglect of appropriate remedies in the first stage—that of diarrhœa.

During the prevalence of the recent epidemic cholera, all that I could hear of, no matter how robust, or thoroughly acclimated, complained more or less of disturbance of the stomach and bowels. In December, there was a constant tendency to flatulence and diarrhœa; while in the spring, the symptoms closely resembled a mild attack of dysentery, which in a great many instances produced hæmorrhoids. I noticed the same change of symptoms in all the cases that I saw, and many other physicians with whom I conversed on the subject made the same observation. This change of symptoms required a corresponding change of treatment.

There are points of resemblance between the cholera morbus, a disease which has been known so long in Europe and in the United States, and the epidemic or Asiatic cholera, as it is sometimes called. In both, we see profuse vomiting and purging, extreme prostration of strength, and cramps. But they differ in many important particulars. In the cholera morbus, large quantities of bilious matter, sometimes very acrid, are expelled forcibly from the bowels, and by vomiting. The epidemic cholera is characterized by the total absence of bile; frequently by a suspension of the secretion of urine; by the rice gruel discharges; and by the far greater mortality.

Watson says that one of his patients who recovered did not secrete or pass a drop of urine from Sunday morning until the afternoon of the following Wednesday. He also states that he has seen, in cases of recovery from the stage of collapse, a re-action so strong as to require depletion.

In these respects—the suppression of secretions, and subsequent reaction—it bears a close resemblance to that form of disease commonly called cold plague, which is, however, as I have before remarked, nothing but the stage of collapse of a malignant intermittent. In fact, the similarity is remarkable. In both diseases, in the stage of collapse, there is the same emptying of the capillaries, and accumulation of blood in the large internal vessels; the cold and shrivelled skin; the craving thirst, with no secretion of bile, urine or saliva, until convalescence takes place. As the stage of collapse in intermittent fever is preceded by regular paroxysms for several days, so, if the patient recover, it will be followed by the same. I have never seen, in either disease, a reaction that required depletion.

Recovery is as doubtful in the one case as in the other. The indications are simple, and the same in both: restore the blood to the surface; equalize the circulation, and sustain the sinking powers of life in the mean time. Whatever plan of treatment will secure these ends, must be proper, and may succeed; any other practice is worse than useless. As soon as the great change commences, (the tendency to equilibrium of blood,) all the untoward symptoms will gradually disappear; the secretions will be restored; the skin become soft and moist; the spasms and cramps will cease, and the pulse, although small, will be regular, and, at first, rather frequent.

It must not be supposed that every case of cholera is characterized by vomiting and purging; there may be the *one* without the other; or cramps and spasms may accomplish the work of death without the aid of either; or there may be vomiting and purging without cramps and spasms.

Black vomit does not occur in every case of yellow fever, any more than the rice gruel discharges in every case of cholera.

Is there not something analogous in the prodigious sweats that we sometimes see in intermittent fevers, in the slow but often prolonged drainage of blood from the anus and gums in yellow fever, and the rice gruel discharges in Epidemic Cholera? In each case, there is great relaxation of tissue, followed by debility in proportion to the loss of fluids. We are not sufficiently acquainted with the mysteries of physiology and pathology to be able to explain the great variation of symptoms which we often observe in the same disease, or in diseases belonging to the same family.

But we may always expect to see considerable variations in the symptoms of different, although kindred, fevers, since we see various types of the same. For instance, the character of yellow fever is sometimes inflammatory, and at other times neuralgic or congestive. But the *intermittents* form the largest family, with their Quotidians, Tertians, Quartans, and their variations in time, prolonged or accelerated, and in other respects, which it is unnecessary here to mention. If we are at a loss for clear and correct views of pathology in malignant diseases before death has laid his icy hand upon our patient, post mortem examinations baffle our researches none the less. The lesions are any thing but uniform; sometimes the brain is the suffering organ, and in various ways; or it may be the liver, or the stomach, or the

intestines; and again there may be found evidence of diseased action in the neurilem of the spinal marrow, or of the anterior and posterior nerves issuing therefrom, to supply the lumbar region; and death may ensue without any lesion of sufficient consequence, to which we might refer the cause of decease, for the whole nervous system may be so deranged and paralyzed as to arrest at once all the vital machinery of the system. With respect to epidemic cholera, Watson observes, "the examination of dead bodies threw no light, that I know of, upon the nature of this frightful disease. The alimentary canal was generally found to contain a white liquid, having whiter flakes in it, such as had previously issued from the bowels. The mucous glands of the intestines were large and conspicuous. The veins were loaded with a black tar-like blood; the urinary bladder was always found empty, and contracted to the size of a walnut.

Even when the blue color had existed in a marked degree during life, it often quickly disappeared after death. And another most singular phenomenon was occasionally remarked in the dead body: A quarter, or half an hour, or even longer, after the breathing had ceased, and all other signs of animation had departed, slight tremulous, spasmodic twitchings, and quivering and vermicular motions of the muscles would take place; and even distinct movements of the limbs, in consequence of these spasms." (p. 823, 4.)

I can state, from good authority, that the examinations of the dead in the Charity Hospital, during the prevalence of the recent cholera, confirm the above substantially, I might even say essentially. Slight variations in lesions may always be expected, not only in different years, but during the existence of the same epidemic. I have not had time to discuss this subject as I desired. My conviction, however, after the review of all the facts of which I could get possession, is that epidemic cholera or Asiatic cholera is a misnomer. The word cholera should in this instance be expunged. It has no more affinity with the common cholera morbus, which may prevail in all our cities to a certain extent every year, than with many other diseases. But it appears to be closely allied to the great class of malignant fevers supposed to be generated by miasmata or malaria. This I consider established by its peculiar symptoms and great mortality; above all, by post mortem examinations.

II.—*A Memoir of the Life, Character and Writings of the late Prof.*

JOHN HARRISON, M. D., read before the Physico-Medical Society of New Orleans, August 11th 1849, by JAMES JONES, M. D., A. M., Professor of the Theory and Practice of Medicine in the Medical Department of the University of Louisiana. Published by order of the Society.

However organized or constituted, whatever be its functions or manifestations, death is the allotted termination of every living, sentient and intelligent being. Religion and philosophy, an undefin-

able and innate presentiment, the noble aspirations of lofty impulses, engender and fortify a confidence in that unknown hereafter, where an immaterial spirit shall dwell apart from its mortal tenement, or where, rejoined and regenerated by a divine fiat, they shall rise again to never ending life; yet to the reality of human perceptions and human feelings, death is the same dark and impenetrable barrier, beyond whose shrouded portals all that we love and cherish in our common life sets and sinks forever. Enveloped in the uncertain gloom of momentous and serious contemplations, it is in the demise of one with whom we have participated in the responsibilities and enjoyments of life, that a recent and sad casualty revives the dread sensations with which we regard this mysterious phenomenon, attended by the irresistible emotions of grief, regret, esteem and admiration that crowd around a cherished memory. Apart even from the altars of affection and friendship, death has a sanctity hallowed by every creed—a respect that finds reverence in every exalted sentiment of instinctive nature—that receives homage in the rites of every known people—that has set its image on the history of all time. By what monuments and obsequies, by what traditions, symbols, and legends, by what creations of poetry, of the chisel, and of the pencil has it not offered and consecrated every known device of genius and art to immortalize the memory of distinguished names. Science has been true to the impulse of nature and the examples of ages; her records are not more rich in the accumulated treasures of knowledge than in the biographies of great masters. The niches and columns in her temples bear trophies of no common merit. They are the ever living testimonials of the successful devotion of the divine instrument of human pre-eminence to the noblest objects of its comprehension; for they who have elevated, adorned and applied superior intelligence, and the resources of knowledge to the melioration and improvement of the whole human family should be exalted to the highest order of public benefactors, and awarded the highest degrees of distinction that society can bestow. Of all the tributes that the living offer to the dead, what more pure in motive, or more honorable in object, than that emanating from the bosom of a scientific brotherhood, which, in commemorating the distinguished qualities of a gifted fellow, gives unbidden expression to the kindred feelings which germinate so imperceptibly amid the common pursuit of knowledge, and to the homage of the mind adds the grateful offering of a pure and disinterested friendship.

Dr. John Harrison, professor of Physiology and Pathology in the Medical Department of the University of Louisiana, was born at the Navy yard in Washington City on the 30th of August, 1808, baptized a few days afterwards, and named after his maternal grandfather, John Hoffman Harrison. His parents were of old and respectable families in the State of Maryland—his father, a surgeon of good standing in the Navy, from whom it is probable he imbibed a predilection for the medical profession. He was not permitted long to enjoy the society and care of his mother and father, the former dying when he had reached the age of ten, and the latter several years after, leaving him under the charge of kind relations in Georgetown, D. C., by whom he was placed at the grammar school of the celebrated Dr. Carnahan. At this institution,

he received an excellent classical education, one, indeed, equal to that of our most respectable colleges. He was always known as an intelligent boy, although no evidence of his capacity or peculiar tastes were exhibited until his fifteenth year, when he entered on the study of algebra; the delight in which he displayed, was the commencement of those tastes for abstract subjects, which were so remarkably developed in after life.

Small in statue and of a delicate frame, he was withal capable of enduring great fatigue, and extremely fond of swimming, hunting and other active and manly amusements. He was of a quick and indomitable spirit, which made him respected by all invaders of the rights of others, and gave to his maturity that fearless and chivalrous character, for which he was to all of us so well known. An orphan, and without companions at home of his own age, he found among his school-mates a grateful return of the sympathies which nature had made active in his heart, and already formed, in early youth, some of those strong and devoted friendships which characterized every other stage of his existence. Left without parental control, responsible to none for the minor duties of a boy's life, he acquired an early reliance on his own resources, an independence of character, which, in him, was most fortunately blended with a native sense of justice and truth,

His classical education completed, our friend was removed to the domicile of his grandfather at Fredericktown, in Maryland. Here he made choice of the medical profession, and became a student of his relation, Dr. Baltzell, an experienced and intelligent physician, with whom he remained until his graduation in the University of Maryland in March, 1831. He certainly did not appear to place a very high estimate on the advantages offered by the celebrated school just mentioned, and left it with no exalted opinion of the professors. Let us except, however, professor N. R. Smith, and the lamented Debutts, whose eloquent and brilliant course of chemical instruction doubtless increased our friend's early taste for that science, which he ever afterward retained. As much, if not more, of his attention had been devoted to the collateral sciences and to literature as to medicine, and he had already established, among his friends in Frederick, a reputation for vigor and acuteness of intellect and for a cultivated taste in philosophical and abstract speculations rarely attained by one of his age.

In 1831, Dr. Harrison concluded to establish himself in the City of New Orleans, to which he was doubtless inclined by the success and countenance of his maternal uncle, then, as now, an eminent member of the Louisiana Bar. He arrived in the month of November, and soon found himself surrounded by friendly and kindred spirits, some of whom were to influence his future character and prospects in society, Thomas Watkins Leigh and Jesse Burton Harrison were, among these, the most prominent. To the former, he owed much of his increased knowledge and refined taste in every department of English literature; by the latter, he was apparently first stimulated to undertake the study of German, Italian, and French writers, in whose works he has been for some years so remarkably proficient. Devoted so much to extra professional pursuits, extremely youthful in appearance, and apparently not anxious

to engage extensively in the practice of medicine, his business for several years was rather limited.

In September, 1832, he made his first effort in this Society, having volunteered to read an article on the propagation of cholera, in which he sustained the agency of contagion. Although equal to the importance of this subject, this essay scarcely sustained the reputation he enjoyed at that time, particularly as regarded the style, which was florid, imaginative and very different from the severe models, on which all of his later productions have been so successfully formed. Indeed, I may here, add in connection with this statement, that our friend not only possessed a cultivated taste for English verse, but was himself poetically inclined, and has left behind him a number of effusions written, probably, between 1831-33, during the first two years of his residence in this city.

In September, 1832, he had a severe attack of yellow fever, after which, passing with some professional credit through the cholera of 1832-33, and the yellow fever of the last season, he was elected in October to the important post of resident physician and surgeon in the Charity Hospital. This office was in those days one of the most responsible a young man could hold, all of the surgical and much of the medical practice being under his control. It must be confessed that Dr. Harrison did not derive the scientific knowledge, and certainly not the extensive practice, which had accrued to other occupants of that post, and was naturally to be expected from one of his abilities. The air of the house was not congenial to his health; his tastes at that time were more literary than medical, and he himself has mentioned that here he pursued his studies in the modern languages, and made at his leisure hours those numerous voluminous excerpts that we find among his manuscripts. As to the increase of his professional business, I have no doubt that he was actuated by those old fashioned notions of propriety, which forbade public officers, who were liberally salaried for the use of their time and talents, from disposing, to their own advantage, of that over which they were supposed to have no right of control.

His position having made him necessary to the gentlemen who first constituted the Faculty of the Medical College of Louisiana, he received the appointment of Demonstrator and adjunct professor of Anatomy. Enjoying in the Charity Hospital unlimited opportunities for the cultivation of practical anatomy, he acquired therein considerable proficiency, and laid a good basis for undertaking the duties of the chair of Physiology and Pathology, in his election to which the succeeding year of 1835, the other professors did proper justice to the most able and talented of their faculty. In 1836, he resigned his office in the hospital in favor of the assistant surgeon, and was himself elected one of the visiting physicians.

Never was a subject better adapted to individual tastes and abilities than physiology to Harrison. He entered on the duties of his new chair with enthusiasm, and in the course of a few years had read, examined and mastered every thing known in the science, besides going through various series of experimental inquiry, of which last, unfortunately, no notes, to our knowledge, remain. For thirteen successive years, with

the exception of two, in which he was obliged to take the chair of Anatomy, did he deliver one of the most elaborate, learned and scientific courses on Physiology ever heard by any audience, establishing for the professor the enviable reputation of a teacher of the highest rank, and adding greatly to the character and attendance of the institution with which he was associated. The only objection that I have ever heard urged against this course of instruction has been, that it was of too elevated and learned a standard for the majority of those in attendance, and required more knowledge of the elementary sciences, and practiced habits of mental discipline, than they could be reasonably expected to possess. Admitting the fact, we doubt the justness of the criticism, and consider it the highest compliment that such a course could receive. In truth, amongst the educated and intelligent portion of the class, this course was more highly appreciated than any other in the college.

His reputation and popularity advanced simultaneously with the increase of the class, the beautiful and philosophical discourse which he pronounced at the opening of the session of 1847-48 being published at their request, as an evidence of their admiration of the production, and their esteem for the author.

It was reasonable to presume that one gifted with Dr. Harrison's order of abilities, and so accustomed to the use of his pen, would not be tardy in finding an occasion for presenting his views on subjects connected with his favorite science in some permanent form. A suggestion in an extract from Dr. Stokes' lectures in the *American Journal of Medical Sciences* for August, 1835, was, according to his own announcement, the origin of his first effort as an author. In this lecture, Dr. Stokes had applied the doctrine of isomerism to the explanation of certain obscure phenomena of lesions of innervation; upon a mature study of which Dr. Harrison conceived the idea of writing his *Essay towards a correct theory of the nervous system*. This work was a long time in preparation, remained for a considerable period in the hands of the publishers, who entertained some fears as to the success of so abstract and speculative a production, and finally came forth in 1844. Whatever unfavorable surmises may have prevailed as to the prospects of a treatise of this nature, they were rapidly dispelled by the general approbation with which it was greeted by the profession, and the flattering comments of our most respectable American and foreign scientific journals. The literary and scientific reputation of our friend was not only firmly established, but this little work, to the publication of which he anticipated a heavy pecuniary contribution, became, to his own surprise, a source of some revenue.

In 1845, Dr. Harrison entered upon a new field, by the association of himself and Dr. Carpenter with the original editors of the *New Orleans Medical and Surgical Journal*. They both contributed largely to this respectable periodical. To the former, it was indebted for several valuable papers, which will be mentioned particularly hereafter, and for various able reviews, and admirable selections and translations for the miscellaneous department, which added greatly to its circulation and general reputation. So justly were his labors in this department of Medical literature appreciated by his colleagues in the University,

that on expressing a desire to retire from his editorial duties in January 1848, they offered a voluntary contribution of \$500 per annum as an expression of their estimation of his services, the publisher offering an equal amount. Our friend remained single until the close of 1842, when he was united to a relative who possessed every requisite for the promotion of his domestic happiness, and in the course of a few years, he became the father of two fine boys, who survive.

Arrived at a period of existence when the intellectual powers are in their full maturity and vigor; happy in his little family; enjoying a select and respectable practice; surrounded by admiring and devoted friends, and in the zenith of his reputation, our lamented associate perceived the first approaches of the disease whose slow and fatal progress was to darken the prospect of a bright future, and ere long to draw the curtain forever between him and all that he valued in life.

In March, 1847, he had a hæmoptisis. We all appreciate too well the gloomy advent of that unhappy messenger. His thoracic symptoms were otherwise so slight that he and his friends flattered themselves that the hemorrhage came entirely from the larynx and posterior nares. He suffered very little with cough, regained much of his ordinary appearance, and having been lately dyspeptic and weak, determined on visiting the American Medical Convention at Philadelphia, in company with our late lamented colleague, Dr. Wm. M. Carpenter. They were duly appointed delegates from this society and from the Medical Department of the University. Never were medical associations better represented. Eminent in the departments of medicine they professed—distinguished by their knowledge and contributions to the natural sciences; well known as authors and scholars, they everywhere received, from men of education, and from the members of their own profession, the respect and attention to which their merits were entitled. In the organization of the American Medical Association, Dr. Harrison was elected a vice president, and both of them were appointed on the most important standing committees. Never, we repeat, were the medical men of Louisiana better represented than by Harrison and Carpenter. Yet in the prime of manhood, they stood on the verge of that limit set to members of a profession which sacrifices every consideration of life to the objects of its high calling, and carried on their wan fronts the badge of honorable toil in an insalubrious and ungrateful climate, as a sad and eloquent contrast with the happier auspices of professional labor in more genial latitudes, where health and independence are the associates of eminence, where talents and scientific attainment give to their possessors the highest position in educated and liberal communities.

Dr. Harrison, during an absence of several months, enjoyed uninterrupted health, and returned home early in August, much improved in appearance, but no sooner re-entered the atmosphere of the city than he felt again its pernicious influence. He once more withdrew to the society of his family in the country, where he remained, at a great sacrifice to his business, until the opening of the collegiate session of 1848-49. Under every disadvantage of ill health and depression of spirits, he discharged the duties of his chair ably and faithfully, and likewise attended to the greater part of his practice. While paying the tribute

of this society to the memory of a deceased associate, how can I avoid here a grateful recollection of the constant and kind attentions I experienced in my own person, from him and many others of the profession, during a protracted and dangerous illness in the winter of 1848, in which, doubtless, the many long hours of rest that he sacrificed to the care of another had no little influence in hastening the result of his own disease.

With the spring returned also his hemorrhages, several of which occurred in my presence, constant cough, wasting hectic, and acute pains in the thorax announced the rapid advance of the malady we had so much dreaded. He returned to the city, much altered in appearance last Nov., though still buoyed up by those delusions so common in Pthisis, pulmonalis, rallied for a brief period, and commenced his lectures, which he continued irregularly for a few weeks. Exerting himself imprudently in going to the dead house of the hospital during the commencement of the cholera in December, he became considerably worse, retired to his chamber and never attempted to lecture again. It was a painful and distressing illness. Exhausted by cough, hectic and profuse sweats, tortured by pleurisies and violent neuralgic pains, his noble intellect triumphed over every calamity, and reigned pure and unclouded to the last moment. For weeks after his confinement, he pursued his favorite studies at tranquil intervals with all the ardor of the most favored periods of his life, investigated anew in the recent editions and later works of Liebig, Berzelius, Gerhardt, Regnault, Pelouze and Fremy, those formulae and theories of general and organic chemistry, which constituted the striking and beautiful features in his physiophical system, and revisited in Spinoza, Coleridge, McIntosh, Bacon, Pascal and Humboldt; those ethical and philosophical creations which had been the charm of his intellectual existence. To beguile the wearier hours, he re-read in the volumes of older English poetry, the familiar pages of which so many glowing passages lived in his memory, and often gave language to his own matured and regulated thoughts. Confined to his bed and incapable of supporting a book, he devised an ingenious mechanical expedient, by which it could be held, and thus at length overcoming his declining strength, he had yet a resource in the voice of one who, with the tender devotion exhibited during his long illness, read for hours at his bedside. Thus closed the life of Dr. John Harrison, in the 41st year of his age, on the morning of March 19th, 1849. His remains were followed to their last resting place by a large concourse of friends, colleagues and pupils, and every tribute of respect rendered to his memory by this society and the Medical Department of the University of Louisiana. We opened our winter campaign sadly, with the obsequies of the lamented Carpenter; it had a no less unhappy termination in the same melancholy rites to Harrison. They were friends and associates in life, did much to promote the cause of science, and to elevate the character of this society and of the medical profession in the State of Louisiana. Their memories will be honored so long as our institutions and records shall remain to perpetuate them.

We have thus comprised, in this memoir, all that its limits will admit of our friend's biography and much on the subject of his character. From what has been already stated of the latter it will I trust be made

to appear that his claims to distinction in science and literature were of no ordinary character. To eminent abilities, he brought studious and methodical habits. Conversant with all that was known in Physiology, he was equally learned in metaphysics logic, and ethical philosophy. Of all his intellectual gifts, that for analysis and generalization was the most remarkable and most forcibly exemplified in his lectures, writings and daily conversation. In the pursuit of scientific knowledge, his greatest interest was exhibited in the investigation of systems, doctrines and general principles. In the fundamental laws of chemistry, zoology, physics and geology, none could be more accurately or critically informed, while to the empirical and practical details so interesting to most inquirers he was comparatively inattentive.

In English literature, there was probably little of consequence with which he was not perfectly familiar. The same may be averred of the French, German and Italian. He had an excellent memory, doubtless assisted by his method of reading, which was a model of excellence. Everything he examined and weighed critically and accurately, noted what was worthy of being remembered, and rose from the perusal of a book perfectly qualified to express an opinion of its merits, and to give a history of its contents. He never permitted himself, or those subject to his advice, to consume valuable time, and acquire vicious habits of reading in the perusal of unworthy productions. His poetical taste and knowledge of classical English and foreign poetry were highly cultivated. Goethe and Schiller, in their own vernacular, were his favorite authors. There was a period, as I have already mentioned, in his early history, when he himself had poetical inspirations, of which the proofs remain in two M. S. volumes. Although he particularly requested that these might remain private, there is no impropriety in mentioning that the volume examined by me contains several creditable effusions, of which the master piece is a fine poem on memory, occupying many pages.

In the ordinary affairs of life, his opinions, though occasionally impulsive, were generally correct, and always disinterested; few have been more chivalrous in asserting and maintaining the truth and justice of their convictions. In him, the rare sense of rectitude, maintaining nothing that is not scrupulously correct and true, *honesty of purpose*, was a noble trait. He held no communion with policy, he advocated no proceeding that could not repose on its own merits. In the examination of medical students, no persuasion could induce him to reconsider an unfavorable vote, conscientiously and advisedly given against one whom he deemed unworthy to be a doctor of medicine.

I have already said that he had a heart formed for friendship. What others bend to private motives was, in him, the indulgence of a noble impulse. Refined and cultivated in his tastes, instructed in every department of literature and science, copious and emphatic in diction, and of a sprightly and convivial temper, he brought to society every requisite for its enjoyment, and very title to its distinctions. The confidence which he exhibited in his own opinion and judgment as a physician, inspired a similar feeling in others; the kind and unaffected interest which he frequently displayed in the welfare of his patients, was the

source of many grateful demonstrations. His reputation as an intelligent and scientific practitioner was not limited to the immediate circle of his own practice; no one enjoyed in a higher degree the confidence and esteem of men of his own profession, and none have been more often called in consultation to render valuable aid in obscure, difficult, and dangerous cases.

The writings of Dr. Harrison are voluminous. Those published consist of his Essay towards a correct theory of the nervous system, containing, also, sundry appendices and notes; of three papers on the yellow fever, one on nutrition, one on the vital principle, one on the coagulation of the blood, an introductory lecture, and various reviews, notices and translations, all published at different periods in the *New Orleans Medical and Surgical Journal*. Among his manuscripts, it is impossible to fix the order of their composition. We have private journals, case books, various volumes of excerpts, two of poems, and a large work on physiology, under the title of *Vital Dynamics*. To the latter properly belongs an extensive essay on sensation, occupying about ninety pages. The notes of his lectures are very brief.

Until his association with the *New Orleans Medical and Surgical Journal*, it is well known that he had paid comparatively little attention to medical literature. He had good reason, however, for a change of views since that period: a critical examination of the periodical publications and new works had brought up his knowledge to the most advanced state of science, and the favorable reception of his essays on yellow fever, and other efforts in this new field, encouraged a perseverance, which, with the continuation of his valuable life, would doubtless have been productive of important results.

The members of this society are all too familiar with the printed works of our late fellow, to require an extended analysis of their contents. They will, therefore, be briefly noticed in their chronological order, to fulfil the expression of the will of the society, and in respectful memory of their deceased author.

The Essay on the Nervous System, the work by which the literary and scientific reputation of our friend was first established, has been so generally and extensively noticed in American and Foreign Journals, that, in my opinion, a synopsis of several will, under present circumstances, subserve the immediate purpose in view, and offer, at the same time, a proper idea of the estimation in which this production has been held by those whose pursuits and scientific character gave them best opportunity and right to express an opinion.

The publication of the Essay towards a correct theory of the nervous system elicited a copious bibliographical notice in the April number of the *American Journal of the Medical Sciences* for 1844. The able reviewer has done justice to the importance of the subjects adduced, and to the power with which the author's positions are sustained. The leading views of the relation of life to organization, and of the reference of vital actions to chemical changes, are faithfully expounded and well illustrated by frequent extracts from the work. Addressing himself to readers, he says: "It is only from an attentive perusal of the essay, that they can acquire a knowledge of the manner in which these views are

sustained and elucidated by a reference to the established laws and phenomena of purely chemical action, as it occurs between different kinds of inorganic matter. The analysis of the application of the new chemical doctrines of isomerism and catalysis, as applied by Dr. Harrison, to explain the obscure phenomena of nervous action, gives a very correct idea of his favorite theories, and thus concludes: "We do not profess, ourselves, to be converted to all the doctrines which the author has advanced, and think that we are able to perceive more than one hiatus in his chain of reasoning. We nevertheless freely admit that, as a whole, his theory of the nervous system is one more consistent with what we know of the vital actions of the animal organism, and attended with much fewer difficulties, than any of those previously advanced; while in its exposition and defence, the author has exhibited not a little ingenuity, with a very thorough acquaintance with the present state of physiological and chemical knowledge, from the prominent facts of which he has very skillfully chosen the material for the support of his theory." So much for the views of one of the most scientific and intelligent collaborators of our first American Journal.

We have another, and a briefer, notice in Forbes' British and Foreign Medical Review for October, 1844. Alluding to the application of isomerism, already mentioned, to the explanation of nervous phenomena, Dr. Forbes proceeds: "This idea is expanded by Dr. Harrison with considerable acuteness and sagacity. He is evidently a man of great powers of reasoning and of observation, and we are disposed to consider many of his views as much more philosophical than speculations of this kind usually are. The author's clearness of thought and expression are well displayed in his examination of the electric theory of nervous action, and in his disquisition on life, which are contained in the appendix.

In addition to these notices, others more favorable appeared in the Edinburg and Dublin Journals, which it has not been in my power to procure in time for this paper. One was also published in a French Journal, translated into German, and sent to the author, containing a very long and favorable analytic review of the whole work.

Enough has been said, at this time, to present the judgment pronounced by men of science on the learning and ability exhibited by the author of the work in question. Five years have elapsed since its publication, yet we believe that none of the novel views suggested have been adopted or sustained in the systematic treatises on Physiology. The same, however, cannot be averred of the grounds that he has taken in opposition to the existence of a vital principle. The 2d appendix on life, occupying about thirty-two pages, is an admirable specimen of logical analysis, admired by all capable of appreciating its merits. So profoundly was he impressed with the importance of this subject, that he republished this appendix in the Medical Journal for July, 1846, fortified by an interesting extract from Mulder.

There is an additional note in the Essay, on the vitality of the blood. This subject was also continued in a "review of opinions, concerning the cause of the coagulation of the blood." In this, he recurs to the explanation of this phenomenon by the advocates for the influence of

the vital principle, and attempts to show that it is a result of chemical action. Although referring no longer to the doctrines of isomerism and catalytic action, which formed the salient points of the Essay, he advocates similar views in relation to the rationale of the solidification of fluid fibrine, by citing analogous examples offered by cyanic acid, chloral and aldehyde, which become solid without a change of their elements. A few years more, and the vital principle will be entirely discarded from the forces acknowledged by physiology and pathology. It is somewhat doubtful, however, whether the substitution of chemical action to explain all the phenomena of life is not somewhat premature, and whether, tested by the same severe logic, such explanations would be much more satisfactory or more incontrovertible than those we have abandoned. In September, 1845, Dr. Harrison commenced, in the *New Orleans Medical and Surgical Journal*, his Remarks on yellow fever. After stating that he will confine himself to his own convictions and experience without reference to the writings and opinions of others, and after indicating the opportunities he has enjoyed for observation, he writes: "I make these remarks for the purpose of showing what opportunities I have enjoyed of studying the disease, and if, in the present paper, there be found little that is new or of much value in a positive sense, it may still, I hope, be of some service in destroying erroneous notions of the disease contracted by those who have never seen it."

I am confident of being sustained by the experience of this society in declaring, that notwithstanding the limited character of these Remarks on yellow fever, they are far superior to any thing that has been published on that subject, and do infinite credit to our local medical literature. Few could have been selected so well qualified in every respect to accomplish the task undertaken.

The description of symptoms given is accurate, methodically digested, and better calculated to impress, upon those desirous of acquiring information, a distinct idea of the different stages and forms of this remarkable disease than any thing we have seen. The post mortem appearances are such as could only be presented by one intimately acquainted with lesions of structure, and enjoying unlimited opportunities for observing what he attempts to describe. The pathology of yellow fever, particularly as regards the *modus operandi* of the supposed poison upon the circulation and general system; the rationale of lesions; the connection of morbid changes with symptoms; the nature of the passive congestions and hemorrhages, and the presumptive origin and composition of black vomit have received every thing from his hands that the present state of Medical Science could demand. We think, however, that, in the analysis of the distinctive characters of symptomatic and idiopathic fevers, our friend has given in a premature adhesion to the hematologic doctrines of Andral, and that it would be difficult to establish, in rheumatic fevers and all those associated with decided phlegmasia, either that the local condition precedes the general, or that the majority, if not all, of these are not preceded by changes in the circulation as interesting to the pathologist, though as obscure as those associated with the very disease in question.

The continuation of this subject in the *Journal* for November, 1845,

commences with the prognosis, which is characterized by the same graphic and experienced aphorisms, for which the whole essay is distinguished. To those of us who have been accustomed, for many successive epidemics, to grapple with this frequent invader, the general remarks on the treatment appear to be particularly judicious. I refer to the necessity of immediate treatment, of good nursing, of quiet, of regimen; the horizontal position; equable temperature; ventilation, and, above all, of a constant recollection of the uncertain and treacherous nature of the malady.

In his description of the several modes of practice, Dr. Harrison has meted out full justice to the mercurial. With his objections to the depleting system, I cannot exactly agree. This practice, particularly as relates to general depletion, has lost ground with the profession less from its injurious effects under judicious management, than from having ceased to be necessary.

Dr. Harrison's history of the introduction of sulphate of quinine in the treatment of the yellow fever of this City is one that will probably be considered as decisive. His description of its effects are accurate and unprejudiced, and has been well confirmed by subsequent experience. We will not detain the society with a subject so familiar. In concluding my examination of these parts of our author's remarks, I may say that he has not only faithfully given the results of his own experience, but those of the collective intelligence and observation of his medical brethren of this community.

The third of these essays was published in the same Journal for March, 1847, under the title of *Speculations on the cause of yellow fever*. Whereas the others contained only the opinions and experience of the author, this is one of his most elaborate productions, entering fully into the circumstances under which the so called poisonous influence is generated; limiting and defining its operation; examining minutely the whole subject of malarious emanations, organic putrefaction and its products; and quoting largely the experiments of Gaspard, Magendie, Liebig and others, and the observations of the most respectable authorities on the diseases of intertropical latitudes. The conclusions favor the local origin of the disease, influenced by meteorological conditions; disprove its mere miasmatic derivation; oppose its communicability, and advocate the existence of a substance which, either in the form of a volatile oil or other organic matter, held in solution by ammonia, floats in the atmosphere, is inhaled during the respiratory movements, taken into the circulation and poisons the system. The hygienic suggestions for the eradication of this endemic from our city are such as every scientific advocate of its prosperity will readily approve. If, in the opinion of this society, it is expedient to republish the writings of our deceased fellow, I would recommend these observations on yellow fever to be the first selected for that object. Their real merit, and the just celebrity they have already acquired, will insure success to so laudable an experiment equally creditable to the author and to the object.

A paper on the "nutritive process, tending to show that it is one of the forces of the circulation," was read before this society on February 7th, 1846, and published by its request in the May number of the *New*

Orleans Medical and Surgical Journal for the same year. The society having heard this essay and expressed an opinion on it, will render it useless for me to examine it on this occasion.

I have already alluded to Dr. Harrison's introductory lecture to his course delivered November 17th, 1847, and published by request of the class in January, 1848. We have here an accurate outline of the objects of Physiology, an account of the vicious systems of philosophizing by which its progress was long retarded, a lucid and interesting exposition of the Baconian or inductive method accompanied by a very intelligible description of the process by which we arrive at and establish "laws of nature" and ultimate facts. The limited character of this memoir has admitted of few opportunities for making extracts of any length. I shall be justified, however, in introducing the following from this lecture: (p. 443.)

"In this severe method *i. e.*, by a close observation of facts, and a subsequent generalization of them, have all the sciences which have made much progress been pursued. This is the Baconian method; and it is, in fact, the only philosophically true method. All our knowledge must come, in the first place, from observation. Of nature and her phenomena, we know nothing intuitively. We must make observations, and by reflection, generalization and abstraction, we form a science of the facts we gather. We can thus give to each phenomenon its particular cause, and to each cause its particular effect, as we see them exhibited in nature. But, if leaving this method, we should adopt a contrary course; if taking some phenomenon in the gross, we should set about to imagine an explication of it, there can be no end to the labyrinth of error in which we involve ourselves. We must observe nature with a close and wary eye; we must return again and again to the same investigation; we must assure ourselves that, in any particular case, we have observed *all* of the phenomena, and taken into the account all of the circumstances connected therewith. Until we have done this, any theory that we may frame will be frail, and at the touch of time all our fine spun hypothesis will fade away. It will be seen that as accident or investigation developes new facts, that our theories are fanciful merely, or but the segment of some greater circle—of some more universal truth. Time, it is said, throws a mellow light over the works of the artist; the abrupt shades are focussed into each other, the gaudier tints are broken down, and the whole is touched and beautified with a grace unattainable by the efforts of man; so, too, does time operate with regard to human philosophy; the bold and false is eaten away; the garish sinks into the chaste; the tablet remains—the transcript of truth and nature." He proceeds to apply these general principles to the study of Physiology, to inquire into the character and nature of the ultimate facts received as such in that science, to consider and question the existence of any forces controlling organic and vital phenomena, differing from those belonging to physics and chemistry. This is the last publication of our friend, with the exception of a review of Dr. Bartlett's work on fevers undertaken evidently for the purpose of a reclamation, and, in addition to other reviews and several translations for the Journal, constitutes, with what I have previously alluded to, all of the published writings of our deceased friend, of which I have any knowledge.

I have been particular in giving an account of the introductory lecture published by Dr. Harrison, because it forms in my opinion a part of an extensive work on *vital dynamics*, of which he has left the manuscript nearly complete. It is arranged as follows:

PREFACE.

INTRODUCTION.

CHAPTER I.—On Matter.

II.—On Forge.

III.—Inertia.

IV.—Phenomena.

This first part will make a good volume.

PHYSIOLOGY.

CHAPTER I.—General Observations.

II.—Organic Matter.

III.—Organization.

IV.—Absorption and Exhalation.

V.—Nutrition.

VI.—Secretion.

VII.—Explanation of Phenomena on the principles laid down.

VIII.—Life.

IX.—General View of Nervous System.

X.—Nervous Sympathy.

XI.—Examination of the Theories on the Nature of Nervous Influence.

XII.—The right meaning of the word Innervation.

XIII.—Adynamia.

XIV.—Hyperdynamia.

I have not been hitherto able to find all the parts of this work, and believe that the author must have made some change in the arrangement and number of chapters, as there are three heavy manuscripts marked Chapter XII, on Sensation, the first of which was twice written, and evidently prepared for the press. I discover also that it is impossible to fix the date of this work, which bears evidence of having been written several years ago. It is one of much importance, and so voluminous, that I have merely looked over certain parts, from the tenor of which I am satisfied of its value. I beg leave to refer it to the consideration of the committee appointed by this Society to examine the writings of our late member, and to report upon the expediency of publishing them. It is to be presumed, as we find nothing else but a couple of memorandum-books of notes, that this constituted the ground-work of the Professor's Lectures on Physiology.

Few literary productions are less susceptible of condensation, or of an abbreviated analysis, than those we have undertaken to examine. With a conciseness and clearness rarely attained, the author's style is singularly terse and severe, his method so logical, his quotations and illustrations so apt and happily selected, that they admit of no reduction, and all other efforts tend only to separate links of which the connection is among the most valuable attributes. Their greatest excellence is in the reasoning. The Essay on the nervous system and the

introductions to his physiological course, constitute one of the best systems of Medical Logic extant. The influence of his philosophical and metaphysical predilections characterizes every page that he has written. That which is established, he systematizes; that which is uncertain, he examines with the severest scrutiny; that which is false, he disproves and rejects. His was the master mind which, although adding few facts to the domain of science, gives truth and philosophy to its general principles, limits the domains of error, and establishes for our mental fabrics the beauty and solidity of structure, that the scientific architect gives to the materials and labor collected and wrought for the objects and purposes of his art.

Thus, however imperfectly, I have performed the duty assigned to me by this Society, of delivering a eulogy on the life, character and writings of Dr. Harrison. More or less known to many present, the events of the first have been amongst the most familiar of my own existence. Born and educated in the same vicinity, Dr. Harrison and myself entered together on our practice in this city, in 1831; were elected to this Society at the same time, in January, 1832; have been collaborators in the Medical College since 1836; and in every phase of our professional and varied relations have multiplied and extended, in the companionship of mature life, the ties of our early associations. On me, principally, devolved the duties of medical attendant in the illness which so sadly terminated his valuable life. His character was of the exalted tone that readily impresses itself on others. Here it requires no eulogium—and there is no praise nor censure that could influence in the slightest degree the estimation that you and others of this community have already placed on it. His published writings have been well received by the profession and commended by high authorities; of which the best evidence is that all the printed copies have been for some time exhausted. It is our duty to collect and republish them in some respectable and permanent form, and I am confident that a subscription can be made in this very State, to provide ample means for the success of the undertaking, if not to realise something for the benefit of those who are entitled to the rewards of his valuable labors.

I have already suggested to this Society the propriety of erecting a monument to the memory of a fellow who has done more to elevate the medical literature and medical character of this State, than any other member of the medical profession. Let it be done under the authority of this body, and opened to public contribution—that we may once behold a generous and honorable distinction conferred on a member of the medical profession. Truth, ability, genius and learning, are not common attributes. They are the candidates for that glorious immortality that philosophy has foreshadowed, and divinity revealed. We should cherish them while living. We should bear enduring and honorable testimony to their memory. These were all combined in John Harrison.

III.—*Contributions to Physiology*. By BENNETT DOWLER, M. D., of New Orleans.

THE experimental researches now offered to the reader's attention, originated incidentally, during a course of anatomical examinations made upon the great saurian of Louisiana; examinations which have corrected numerous prevalent errors, and which have at the same time resulted in discoveries that are deemed important, if not fundamental, in their bearings upon the doctrines of physiology; none of which, however, are essential to the purposes of this paper, and, therefore, need not be given now. For anatomical, rather than for physiological reasons, my vivisections have been chiefly confined to the alligator; an animal whose anatomy, physiology, and psychology place it above frogs, turtles, and salamanders, which have been generally relied on by experimenters. How unlike soever the alligator is to man, these latter are more so. If frogs are good, alligators are better. Indeed, Dr. Carpenter, a distinguished physiologist, expressly declares that "experiments on the nature of this (the nervous) function, are *best* made upon the *cold-blooded* animals; as their general functions are *less disturbed* by the effects of *severe injuries* of the nervous system than those of birds and mammals."—Phys. §375.

It will be borne in mind, that vivisections have been ever restricted to the inferior animals. Man never has been subjected to physiological dissection, though this had been a merciful process compared to many methods of torture, which, in former times, were adopted by the State, but more particularly by the Church; times in which, unfortunately, physiology had no more an existence than liberty.

Hence, the point of departure here taken, whether impregnable or otherwise, is, according to usage, the legitimate one. The method of determining function, by vivisection, is bad; yet, where can a better be found? The biologist is reduced to the sad alternative of remaining in a great degree ignorant, if he reject all methods not directly demonstrative. He reads in an artificial condition, a natural condition; in a part, the whole; in analysis, synthesis; in decomposed forces, compound forces; in vital maelstroms, cataracts and *crevasses*, the smooth, noiseless, equable, and ever-flowing river of life; in concentrated agony, the concentration of animal happiness, that is, the laws, perfect health; in an incomplete death, he takes his lesson upon the complete science of life. Like the tempest-tossed Columbus, in search of the new world, he finds here and there drifting fragments from the mysterious realm—now a light! land! land! and, like the enraptured mariner, chants *Gloria in excelsis*.

As, then, the method of exploration, by vivisection, never has been, never will be extended to man, its processes must be restricted to the inferior animals, and its results must be applied on the principle of analogy. There can be no doubt that seeing, hearing, motion, pain, and the like, are similar in man and animals, though, from the imperfection and the *limited number of our senses*, we are unable to appreciate fully any of these phenomena in either class. Perhaps, the great difficulty in physiological research, lies in the *limited number of the*

senses—ten or more senses may be necessary, instead of *five*, or sometimes four, or three, as with the deaf and blind. The experimental favors this transcendental view. For example: is there not a need for a *dynamical sense*? Say, O, groper in the dark! what do you know of the number, nature, and substrata of the forces, as the muscular, capillary, voluntary, involuntary, vital, chemical, electrical, magnetical, calorific, gravitative, planetary, mental? It is highly probable that a *sense* of this nature would enable the physician to cognize disease as an entity! It is remarkable, that even those physicians who deny disease to be an entity, nevertheless think, speak, and write of it, as if it were really such throughout pathology and morbid anatomy. Is frontal pain, red eyes, yellow skin, black vomit, or pale liver, yellow fever *itself*, or are these *effects only*? If a physiological fact be many-sided, or have, say, eight links, all of which must be known in order to make it really valuable in practice; and if our cognition can reach only to four aspects or links, this half knowledge may be as useless as the odd half of a pair of scissors. It is here, if anywhere, that “a little learning is a dangerous thing.”

We have no sense by which to appreciate space in its entirety. The senses, and the experimental philosophy may reckon by inches, miles and leagues, but they never can reach, much less teach, the infinite expansion, which pure reason cognizes, as an essential truth in relation to space—an intuition seen in its own light, and as it were, in contrariety to experience, or antithetically. “The progress of Astronomy,” said Laplace, “has been a constant triumph of philosophy over the illusions of the senses.” The mind as an entity, connected with or separate from matter, cannot be identified, appreciated, or even conceived by the existing senses of man, notwithstanding his irrepressible desires and efforts, hopes and fears in relation to this part of his nature.

The same want is obvious in what are called Final causes, including the essential conditions, connections, adaptations, and ends of physical, mental and vital phenomenology. The sense of *Finality* might enable us to apprehend the connection between quinine and the dissipation of an intermittent, between chloroform and insensibility, mind and body, gravitation and matter. The adaptations and the intentions of nature are, in a considerable degree, obvious in the osseous, muscular, dental and visual structures, while those of the brain, nerves, spleen, capillaries and other organs are beyond the grasp of the senses. Nor, is this all. Causes produce effects, apparently contrary to all analogy and synthesis. The muscular motion produced by the percussion of the dead body, is exactly contrary to every principle of dynamics known in the physics of inert matter. The percussed body does not move in a right line, nor in a direction opposite to that of the percussing force. In the following experiments, all the physical stimuli applied to decollated alligators, are answered, not in the language of physics, but in that of physiology.

The phrenologist, as well as the biologist, pursues this route, namely, comparative anatomy, throughout the entire realm of the animal kingdom, from the lowest type to the highest, in order to prove that the brain is the exclusive organ of the mind—a theory, which some of the following experiments oppose; for the headless trunk of an alliga-

tor, deprived of the supposed organ of combativeness, displays a good will to fight, using both its limbs, directing all its available means intelligentially, and, upon finding, *after a fair trial*, that these fail, it retreats laterally, by rolling over *from* its enemy, never *towards* him, as if guided by sight—all of which the sequel will prove.

The clinical method of physiological research is of vast importance, but its results are less satisfactory than many suppose. It is less simple than vivisection. A lesion in a particular tissue or organ, may be—nay, often is—only the effect of composition of causes; the common product, to which several organs, tissues, and functions have contributed equally. Hence, that vast accumulation of clinical facts, to which many appeal, in order to prove some of the prevailing doctrines of physiology, is, in this connection, often of doubtful import. Many of these facts admit of a different interpretation; or, at least, do not clearly warrant all the conclusions which have been drawn from them, particularly as to sensational, intelligential, motory, spasmodic, tetanic, convulsive, maniacal, inflammatory, adynamic, paralytic, and febrile phenomena. The nervous masses constituting the cerebro-spinal, and ganglionic systems, have been divided, subdivided, named, mapped, described, and gravely inaugurated into all the offices of the living economy, to the exclusion of the other tissues and organs, whose *roles* are equally important in the system.

The style and terms used by neurological writers, are startling. They talk of double filaments of nerves throughout their entire course—the one set for sensation, the other for volition—as if these were anatomical facts; they affect to point out motory and sensory tracts, as if they themselves could see these in the very act, very plainly; they insist on what they call the *true spinal marrow*, which they claim as a discovery, though they do not pretend that any anatomist, of the material school, can either see it, or feel it, except in diagrams, in books. Mr. Solly discourses of “the nucleated *dynamic* vesicle connected with the *motory and sensory tracts of the cerebellum*,”* and Professor Walshe, of the University of London, with due hesitation, speaks of “the *mere dynamic change of the spinal cord*.”†

The pedantry of some of these, and of many other terms recently introduced into the physiology of the nervous system, differs from the specimen invented by Coleridge, inasmuch as these terms are totally incomprehensible: A learned man, instead of asking his wife to make the tea, told her to add to *quant. suff. of thea chinensis*, the oxyd of hydrogen saturated with caloric! Mr. Lamb, having been asked for a definition of what is called learning, replied, that it was a systematic arrangement of ignorance—a very good definition of innervation, reflex action, sensory tracts, motor tracts, afferent, efferent, excito-motory, not to mention those wonderful maps, charts, topographical surveys, and diagrams with arrows pointing out all the highways and by-ways, not of neurological lands, but of the reflex travellers themselves.

About three or four years ago, it will be recollected by the readers of the London Lancet, that there was a learned correspondence among

* On the Brain, 262.

† London Lancet, July, 1849.

some of the most eminent physiologists of England, in which it was seriously asserted, that the human brain was arranged in strata and sub-strata; one stratum was devoted to politics, another to sciences, another to religion, while others performed less dignified duties, such as calling for medical advice. It was, also, affirmed that these strata were very liable to dislocation! Such dissolvent scenes are wonderful, especially in the nervous system. It is not a little surprising to find so many physiologists, charmed by a glittering word INNervation, an ideal creation, an ideal alteration, never yet discovered, never yet explained even transcendently, and, consequently, beyond the reach of verification by any materializing test, beyond the scrutiny of Realism. *This word*, however, serves as the foundation of much in physiology, more in pathology and therapeutics, and, what is still more astounding, it is relied on by some morbid anatomists. The latter, finding that in almost all persons dying of what disease so ever, particularly of fever, that little or no appreciable alteration takes place in the nervous tissues or matter, concludes, against both reason and analogy, that their patients die of innervation, or an unknown change in that structure! Would an angler go into a rail road car to fish?—a recruiting officer into the dead house for soldiers?—a gold digger into a glacier?—an astronomer into the mammoth cave of Kentucky?

The theoretical bias to centralization which prevails in modern physiology is not warranted either by the experimental, nor the transcendental philosophy. Why should not the sensorium be *diffused*, instead of being *restricted to a single centre, or mere point* in the cranial, spinal or abdominal cavity? Why should all the lines of intellection, sensation, motion, and vitality meet in, or radiate from, one or three centres? For example: take any organ associated with the sympathetic system, and compare it with any ganglion of that system, and it will appear from anatomy, analogy and teleology, that the organ is better adapted to do its own work than the ganglion, though both may be necessary to the origin and perpetuation of the organic function. The same bias prevails in pathology. Affections of the nervous centres are spoken of with as much confidence, as if they were cutaneous affections. What would be said of a diagnostician, who would pronounce a disease, *itch, or erysipelas* without *any alteration* whatever in the skin? "Ignorance is bliss," to such knowledge of organs, functions, diseases and morbid anatomy.

How little is positively known of the anatomical characters of mental diseases? The celebrated Esquirol, in his elaborate work—*Des Maladies Mentales*, concludes that post mortem examinations do not reveal the seats of mental diseases; and that these diseases do not always take their point of departure from the brain, but often from other parts.

The pathological or clinical method of investigating the functions of the nervous system, is not only too difficult in itself, but too vast for the narrow scope of this inquiry. For example, many cases of the disorganization of the brain, by disease and accident, might be given, wherein the psychological and motory functions persisted almost unimpaired. Vivisection, though a different method, affords similar results. One of the densest of all absurdities in physiology and pathology, is that of attributing all unexplained and incomprehensible facts and doctrines

to the nervous system—that Hades of theory, “Where the wan sceptres walk eternal rounds.” According to the testimony of experimentalists, favorable to the paramount claims of the nervous system, it would seem, that the blood is equally potent with the nerves.

Prof. Muller quotes and adopts the conclusions of vivisectors, namely, that “the muscles loose their power of *motion* when the current of arterial *blood* towards them is obstructed. This phenomenon is sometimes observed when a ligature is applied to a large arterial trunk in the human subject; the power of moving the muscles under the influence of the will is either partially or wholly lost, until the collateral circulation is developed. This fact has been confirmed by Arnemann, Bichat and Ernest. Segalas has also observed that, when the *abdominal aorta is tied* in animals, the hind legs are rendered so weak, in *eight or ten minutes* they can scarcely be dragged along. Whether the principal influence of the *blood* consists in its maintaining the contractility of the muscles, or in its enabling the nerves to convey the influence of the will, has not been investigated.” (Phys. 658.)

In opposition to some of the doctrines of the present system of neurology, including its absolutism, its supposed centralization, and its exclusive pretensions to psychical, phrenological, dynamical, sensational, volitional, pathological and vital domination, it might be urged and proved, synthetically and analytically, that often other systems or tissues contribute equally, sometimes surpassingly, to the economy, in health, and in disease: for example, observation, experiment, analogy, teleology and rationation prove that muscular motion is not the mere passive, but the direct act of the muscle—not a mere secondary, transmitted nervous force, but an inherent, ultimate phenomenon, which, in its simplest state is quite independent of the nervous centres and their connections. This is, indeed, remarkable; for it may be confidently predicted, from what is already known, or from what may be fairly deduced from data extant, that future researches, impartially conducted, will show, that each tissue, each organ contributes to the vitality or life of the whole; or, (to use an apt illustration, for which I am indebted to my distinguished friend, Dr. Cartwright,) as each State of the Union is, for certain purposes, sovereign and independent in itself, and, yet, contributes, at the same time, together with all the States to form one general government, so each organic tissue contributes to the formation of one vital whole. The constellation is fixed: No State revolves around another, or even around the general government. There is not one centre, and thirty satellites or organs in either the Federal, or in the physiological system. Admitting (what is indeed positively erroneous,) that the nerves form an essential condition of muscular contraction, still this would not prove them to be the instruments of motion, seeing that they have no adaptations to that end, while the muscles have. Moisture, a certain temperature, and certain nervous influences might be necessary conditions, not direct agents adapted to flexion and extension.

Among the forces or dynamics of the living body, I regard two, as having been already established as independent and inherent, namely, the muscular and capillary, (including the venous, portal, lymphatic and lacteal.) At least, there can be no longer any question as to the reality,

independence and non-derivative nature of the former. Possibly, the latter may be only a modification of the same force—a force, that must serve, henceforth, as the type and point of departure for the science of Vital Dynamics. Can physiology boast, as yet, of any other clearly developed and well established dynamical principle?

The Forces, as Forces in their own essential nature, elude observation, altogether, being accessible only in their phenomenal character, that is, in their motions or laws, connected with material masses, time and space. The muscular force presents a lever, by which the physiological dynamist may work, namely, adaptation, which latter is in a great degree obscure or wanting in the capillary, venous and chylous organs. The motions attributed to the nerves, are not only gratuitous assumptions, but they are sometimes in absolute contrast to the principles of adaptation. There is not a nerve, teleologically speaking, that can compare with the muscular organs, as in flexion, extension, pronation, supination, or with the dynamical finality of that great muscle, the heart. The physicist, who examines the levers and muscles of the arm, has but a short step to take towards vital dynamics; but it is impossible, even after taking for granted that there is a nervous fluid, to advance in any direction, without getting more into the dark than ever. Here the best physiologist cannot advance by anatomy, nor by vivisection, nor by clinical observation. He may reject hypothetical fluids, and immaterial, dynamic alterations; he may appeal to morbid changes, and yet he shall make but little progress in explaining, even those diseases called nervous. Palsy, to take the strongest case in favor of the neurologists, may happen without any perceptible injury of the brain, cord or nerves. In sun-stroke, the only disease wherein there is *no trace* of either sensation, intelligence or voluntary motion, the nervous masses present no alteration, the lungs being the seat of the lesion.

In the London *Lancet* for July, 1849, it is reported, that in nearly every case of death from the inhalation of chloroform, the insensibility and the extinction of life take place in less than *one minute*, and that the only lesion found, is in the *lungs*. Now, in nearly all cases of apoplexy of the gravest character, the patient lives one or two days, and is rarely, if ever, *completely* insensible.

Far be it from me to *under-rate*, because others have *over-rated*, the *role* of the nerves in the animal economy. Both experiment and teleology discountenance the doctrine that all mental and material forces, including sensational and voluntary phenomena, originate solely in the brain, or in any three points in the cerebral, spinal and ganglial masses, and not in a diffused sensorium—a sensorium co-extensive with nervous matter—a sensorium limited only by the expansions of the living mass. The assumption of an end, and of the essential conditions or adaptations in structure to produce that end, upon an intelligible plan, all fail; teleology fails to support the present exclusive system of neurology. What are called the great discoveries in the nervous system during the nineteenth century deviate farther from the truth, if I may speak what I believe, than the researches of the last century, as revealed in the works of Whytt, Prochaska and others. Ascribe the great force manifested by the delirious, maniacal and the tetanic to the nerves, instead of the mus-

cles; grant the cramps in cholera, to the nerves, and not to the muscles; admit the same in the case mentioned by Haller, wherein a delicate girl affected with emprosthotonos sustained a weight of 800 pounds without straightening her body; concede all, and what will be gained or explained by thus sacrificing to an assumption, the evidence of the senses, of anatomy, of analogy, and of adaptation?

That the cerebral, spinal and ganglial masses are necessary to health and life, cannot be denied; the same may be affirmed of the heart, and its blood vessels, of the lungs, of the blood, of the muscles, and of many other tissues. But it does not hence follow, nor is it at all probable, that the heart's action, muscular contraction, the capillary motion, calorification, and many other functions that might be named, are exclusively or even principally due to the nerves. Evidence might be given, proving quite the contrary.

Before proceeding to the experimental portion of this paper, it is deemed necessary to give a brief outline of the principal doctrines, now received as fundamental in the physiology of the nervous system, so far as the following experiments may have a bearing on the same. This course is the more necessary, because some persons, particularly students, may desire to see these doctrines, and the experiments side by side for easy comparison.

"Between the brain and the muscles," says Sir Charles Bell, "there is a circle of nerves; one nerve conveys the influence from the brain to the muscle, another gives the sense of the condition of the muscle to the brain; *if the circle be broken by division, there is no longer a sense of the condition of the muscle, and therefore no regulation of its activity.*"*

In the dictionary of Natural History by the principal *savans* of Paris, the following summary is given: "*La locomotion s'exécute du moyen d'organes dont l'ensemble constitue l'appareil locomoteur. Cet appareil se compose des organes actifs et des organes passifs du mouvement. Les premiers sont l'encephale ou reside la volition au la volonte d'exécuter tel ou tel mouvement, les nerfs qui la transmettent aux muscles qui l'exécutent sous leur influence.*"†

Muller says, on the subject of "co-ordinate movements," that "the movements of locomotion are dependent on the *will*"; that "the *cerebellum* more especially rules over the combination of the muscular actions," and that "the *removal of the cerebellum* produces a *loss of all harmony in the action of the groups of muscles.*"‡

Muller maintains that the *associate or consensual movements*, "*all have their source in the brain itself.*" Irritation of a portion only of a great nervous trunk never influences the rest of the nerve, but is propagated *only to those branches of it which are formed of the fibres irritated.* The associate movements cannot be ascribed to the sympathetic nerve."§

Professor H. Milne Edwards, says: "All parts of the spinal marrow and medulla oblongata lose the faculty of determining voluntary movements, and of giving birth to sensations, *as soon as they are separated from the brain.*"||

* Nerv. Syst., 159. † ix., 447. ‡ Phys., 677. § Ib., 536. || Anat. and Phys., 169-

"The action of the *brain* is indispensable to the perception of *sensations* and *manifestation of the will*. The impressions received by the nerves, must be conveyed to *this organ*, that the animal may be *conscious* of them."*

Mr. Solly, in his late work on the brain, says that "the nerves are mere conductors, not *originating* the power of contraction in the muscles, conducting a *something* to a certain point, [that is the brain,] where it is converted into a sensation and perceived"; and that "the *cerebellum* is a *regulator* and *co-ordinator of muscular action*."† All of which he affirms as true in comparative, as well as in human physiology.

Drs. Kirkes and Paget, in their recent manual of Physiology, say, "that the *cerebellum* is the organ for the co-ordination of the voluntary movements, or for the excitement of the combined action of muscles"; a view which they declare, "is *confirmed by comparative anatomy*," and, finally, "that *no other office* is manifest in the cerebellum than that of *regulating and combining muscular movements*, so that the will be *definitely and aptly directed to them*."‡

Mr. Alex. Walker, in 1815, maintained "that the *cerebellum* is the organ which gives impulse to *all muscular motion, voluntary and involuntary*"—(corrected in 1834, thus "to all *voluntary* motion.") "Sensation precedes, not only motion, but perception and intellect in conformity with the truth '*nihil in intellectu quod non prius in sensu*.'" "The *cerebellum* is the organ of *volition*." "This or that convolution [of the cerebellum] will give guidance to corresponding muscles."§

In the system of Physiology written by Dr. Roget, for the last edition of the Encyclopædia Britannica, it is laid down as an axiom, "that sensation does not take place, unless the part of the spinal cord to which the nerve is connected, communicates by an *uninterrupted continuity of substance with the brain*."||

In a learned periodical, (*Bibliotheca Sacra*,) ¶ PROFESSOR CHACE, of Brown University, maintains, in his elaborate paper "on the dependence of the mental powers upon the bodily organization," that the brain is the only part of man related to the mind, to perception, sensation, voluntary motion; the spinal marrow being only a medium of communication for the brain; that "the *cerebellum* is *immediately* concerned in the regulation and subordination of the different *muscular contractions*," and that the removal of the latter renders an animal *incapable* of executing "with any *precision, movements requiring the combined and harmonious action of several muscles*"; all of which, the professor affirms, is at once true in man, and in the inferior animals.

Dr. R. B. Todd, an eminent and learned author, in a recent lecture on the physiology of the nervous system, concludes that the "spinal cord is incapable of *originating* any nervous action except in virtue of some physical change in it; it cannot develop any mental action except in

* Anat. and Phys., 170.

† On the Brain, 259, 261.

‡ 322, 3.

§ Nerv. Syst., 284, 286, 400, 414.

|| xvii., 673.

¶ For Aug., 1849.

obedience to a stimulus from some of those *centres*, belonging to the *encephalon*.”*

As there will probably be an attempt to explain the experimental portion of this paper by *words*, such as *instinct*, *automatic motion*, etc., it may be proper to allude to these terms.

The definition of *instinct* by the great Cuvier, and adopted by the eminent Muller, is subjoined—a cataract of assumptions it is. The natural history of Ossianic ghosts is less incomprehensible: “In order to have a clear idea of *instinct*, it is necessary to admit that animals have innate and perpetual images or sensations, which induce them to act as ordinary and incidental sensations commonly do. It is a sort of a dream or vision that ever haunts them, and may be considered, in all that relates to instinct, as a kind of somnambulism”†

Professor Muller, says “*instinct* is unknown to the animal,” “presenting to its sensorium the *theme*”; “is identical with the creative force of the organization”,—“first manifested in the sensorium.”‡

This author designates *automatic movements* as “all those muscular actions which are not dependent on the mind, and which are either persistent or take place *periodically*, with a *regular rhythm*, and are dependent on *normal natural causes* seated in the nerves or central organs of the nervous system. The cause of the *rhythmic movements* may be either in the sympathetic nerve or the great nervous centres, but *never in the mere cerebro-spinal nerves*.”§ The popular or common definition of this word is strictly mechanical;—the motion indicated is similar to that caused by a watch-spring, by a weight, by steam, by gunpowder, and the like.

It can hardly be expected that psychologists will accept, with alacrity, the conclusions deducible from the following experiments, so hostile, to the prevailing doctrine of the mind. Indeed, Professor Carpenter of England, has, in advance, pronounced upon the facts to be offered—he has, in effect, declared against their possibility, because, they are in conflict with psychology: He says, a frog can perform voluntary actions after the division of the spinal cord *only in that part of the body above the division, that is, next the brain*, the latter being uninjured; while, that part separated from the brain acts involuntarily. His argument is this: “To say that two or more distinct centres of sensation are present in such a case, would be in effect the same as saying, that there are two or more *minds* in one body,—which is manifestly absurd.”¶

Suppose that an alligator is in perfect health, with the exception of a loss of sight, and a loss of the power of forward motion, could it give any clearer indications of sensation and voluntary motion, than those mentioned in these experiments as occurring after capitation?

The following experiments are offered without any view to arrangement, as being adapted to prove particular doctrines. The applications are left to the reader.

Sept. 8th, 1849.—*Experiments on the Alligator*.—Dr. S. Powell, of this city, witnessed all, and aided in most of these experiments: this account was written the same day, and was read to, and approved by him.

* New York Jour. Med., Sept. 1849. † An. King. ‡ Phys. 676. § Ib. 664. ¶ Ib. 877.

A longitudinal incision in the neck, from above, was made through the thick mass of muscles upon the cervical vertebræ—the vertebræ and the spinal cord were divided completely; the finger was passed between the divided parts. In about three quarters of an hour after, a transverse incision was made midway between the shoulders and hips—the spine, with the cord, was divided with the saw, the parts were separated so as to admit the finger between the divided ends of the cord, exposing the abdominal cavity. In about half an hour after this second division, the animal was placed on its back, and the whole of the viscera were slowly dissected, and removed from the body. The sympathetic was destroyed. This last dissection occupied about one hour. During the latter part of this process, and some time after the removal of the organs, the animal died, having lived after the first section, about two and a half hours.

During a period of more than two hours, this animal displayed complete intelligence, volition, and voluntary motion in *all divisions of the body*. It saw, heard, felt, defended itself, showed anger, fear, and even friendly attention to its keeper, a black boy. This latter manifestation, is so extraordinary in an alligator, that I will notice it first, though it was not verified, until after the second division of the spinal cord. This animal, with several others, were presented to me, by my friend, Dr. Young, when leaving this city, to visit Europe, during the last summer. Mr. Barbot (at whose apothecary store this animal had been kept, with the others, for many months) informed me, some weeks ago, that it had become fond of the black boy, who had taken care of it. The experiments had lasted more than an hour—the animal had been much exhausted—had lost much blood, and, for a time, scarcely seemed to take notice, when Mr. Barbot proposed to bring up to the third story his servant, its keeper; the boy went near it—he called it in a kind of gibberish style—it raised up its head and turning towards him, gently opened its mouth—looked quietly at him without its usual menace. All four of the gentlemen then present, agreed that it recognized the boy, and that it manifested affection for him. The boy repeated his fondling calls (gibberish) several times, and with the same results. It saw him, followed him with its eyes, and knew his voice. Its mute language could not be mistaken. It was the first time I had seen affection of this kind in alligators. I have kept some nearly a year. They always feared, or menaced me, though I always fed them. For nearly two hours, the animal watched our operations: on approaching too near it, so as to excite its fears, it raised its head, opened its mouth to bite, directing its head to the right or left, to attack its enemy. It threw the nictating membrane over the eye, on perceiving a body approaching near the cornea, in order to defend the same; and this, too, in advance of actual contact. It retained the sense of hearing: for on making a noise by striking a board, without advancing towards the head, it looked angry, and opened its mouth to bite.

In the meantime, the other parts of the body (though its spinal marrow was divided in two places,—in one severing most of the muscles of the back) manifested sensation, volition, and combined or complex motions of a vigorous character. This was not all. For, the lateral

muscles of the body not divided, together with the hind legs, were adapted so as to aid the forelegs in removing fire, or a pricking body, *above the part divided*. In fact, the forelegs and hindlegs, mutually aided each other, notwithstanding the *intermediate division of the cord*.

After nearly two hours spent in this kind of experiment, it was found on dissecting the viscera, and sympathetic, the animal lying on its back, that it directed its limbs to the place where the knife was applied in dissection.

The heart continued to act as long as it was observed, even after having been roughly handled, emptied, and removed from the body.

For want of suitable instruments to divide the spine, the vertebræ were injured, and the muscles were extensively divided, which, of course, diminished the brilliancy of the results.

Have not vivisectors vitiated the results of their experiments, when they have cut the muscles, and the great levers, the bones, without which the phenomena of motion cannot take place even in a physical point of view? In the longitudinal dissection of the spinal cord, to get at the roots of the nerves, the bones and muscles are cut and destroyed, which ought not to be done. I have seen a healthy woman who had, from a neglected fracture, a false joint, midway between the shoulder and elbow, the arm hung powerless, by her side, like a dead weight. She could perform no voluntary motion with it, simply, for want of a lever or bone, as a *point d'appui*. Vivisection, for the roots of the nerves—(and this is the great physiological passion of the age) is, often, for these merely physical reasons, the fruitful source of false theory.

If the spinal cord be viewed as a *double organ*, a longitudinal dissection of its canal, in order to reach the roots of the nerves, must be regarded as a very equivocal mode of experimentation, both physiologically and mechanically, since, it is, as already mentioned, *destructive* in its nature; or, at least, it must completely derange the equilibrium of the osseous, muscular, and nervous tissues. A transverse section of the cord and of its soft and bony envelopes, is, both functionally and physically, a simpler experiment than longitudinal dissections. The influence, long attributed to the spinal serosity, in sustaining muscular motion, affords an example of erroneous experiment and rationation. By the proceedings of the Academy of Sciences, at Paris, it now is admitted, as proved by M. Longet's experiments, reported in 1845, that the disturbance, and the loss of muscular motion, are owing, not to the subtraction of this spinal fluid, but to the antecedent destruction of the bones, muscles, and the like, in the opening of the spine. A violin with all its strings and frame work divided, and placed in the hands of a dead man, could hardly be expected to discourse in good music.

October 30th, 1847.—*Experiments on an Alligator, nearly three feet long*; by Dr. Young, Mr. Barbot, and myself:—Five grains of strychnine were dissolved—half of which was thrown into the gullet—a small portion was regurgitated; in twenty-five minutes several convulsive contractions took place in the general muscular system. The residue of the mixture was now given;—a portion was again rejected—the convulsive contractions increased—tetanic rigidity followed—the

jaws forcibly closed—the limbs became stiff and straight. In one hour after taking the first portion of strychnine, the animal appeared nearly dead—there was only an occasional motion on the hind legs, tail, and in the nictating membrane. Dr. Young now began to dissect the animal, with the view of preserving its head, and skin. The limbs had ceased to be rigid, and were sometimes directed intelligentially. The spinal cord was severed in the neck,—a probe passed down the spinal canal two or three inches below the part giving off the axillary plexus, breaking up the texture of the cord completely; one spasmodic jerk followed in the forelegs, on introducing the probe. For an hour after destroying the cord, the forelegs contracted, though far less frequently, less forcibly, and less definitely, than the hind legs and tail. The heart for three hours, that is, as long as observed, acted regularly, both before and after its removal from the body.

April 13th, 1848.—At 10 A. M., I observed an alligator, *in articulo mortis*; (its health had been declining for some days, owing to an inflammation of the bowels with ulceration, as the post mortem examination showed;) it was unable to walk, but watched my movements. In fifteen minutes afterwards, it appeared to be quite dead. It was placed on its back for dissection; it moved its limbs intelligentially for several minutes. The dissection lasted seven hours; during nearly half of this time, the heart or ventricles continued to beat about fourteen times per minute—the right auricle, about twice as often. The heart was separated from all its annexæ, but did not cease to act, until after its ventricles had been roughly probed. Thus freed from blood, and removed from its connections with the nerves, it acted with regularity, as before.

May 12th, 1848.—Having observed that an alligator had become feeble, I determined to kill it for dissection. On taking hold of it, it seemed much alarmed, and cried several times, Houpe! Houpe! This is the only articulate sound that I have ever heard from an alligator, and it is, I believe, peculiar to the young animal, and is never uttered but when danger is suspected; it appears to be the synonym of the word *Help*, the sound of which, it very much resembles. It hissed, and attempted to bite.—The upper portion of the skull, including a horizontal stratum of brain, was removed. Hæmorrhage, to a considerable extent, followed; the eyes closed. The animal no longer attempted to bite. It performed, however, a series of voluntary motions, intelligently directed, to ward off injuries. The entire brain and the medulla oblongata were removed, without diminishing its power to direct its limbs to any part that was pained by the slightest touch of a pin or knife. A metallic rod was passed many times within the spinal canal, completely destroying the spinal marrow beyond the hips. The animal appeared to die very soon, the tail excepted. It was, however, afterwards found, that both voluntary motion, and sensation, remained, though their manifestations were greatly impaired. The forelegs were slowly and feebly directed towards irritated parts; these motions disappeared in a very few minutes. The tail twitched frequently, for an hour after, as if pained by the dissection of the trunk, and viscera. Both before and after its removal from the body, the heart acted regularly for four hours. The right auricle was the first to collapse.

May 22d, 1848.—Dr. Young, and myself, (aided by Mr. Barbot,) performed the following experiments, upon a stout alligator, four feet long. Two men drew several strong twines with all their strength around the animal's neck, but this, in ten minutes, did not produce either strangulation, or palsy, though the force of the limbs was diminished. Decapitation was now performed. The great carotid, which threw out blood freely, was tied after three or four ounces had been lost.

For more than an hour after decollation, sensation, perception, vision, passion, and voluntary motion continued in the head. It saw its enemies—opened its mouth to bite, at the proper time—nictated, when a foreign body approached the eye. The pupils responded, naturally, to the degrees of light.

The headless trunk for three or four hours, during extensive mutilations by two operators, manifested, in a still higher degree, sensation, intelligence, definite, well directed muscular actions. There was, as usual, a complete loss of progressive or forward motion. The tests used to elicit sensation, and voluntary movements, were pinching, puncturing, and burning. Its sensibility and motions appeared to be nearly as acute, quick, and varied, as in the un mutilated animal. The direction of the limbs was not such as could be deemed habitual, as in walking and swimming. Some of these motions are of difficult execution in the entire animal, from its anatomical conformation; such as reaching up between the shoulders or hips, to remove an irritant. All of the muscles that could in anywise contribute to the will and aims of the animal, as in curving the body or tail, so as to bring the irritated part within the range of the appropriate limb, etc. There was not a single unmeaning or convulsive motion. These motions, altogether volitional, began, continued, and ended with the pain producing cause. For hours, during the dissection of the viscera, the limbs, when unconfined, were directed in this intelligential manner. While operating on the organs connected with the sympathetic or ganglionic system, these motions were less vigorous and less frequent, than those noticed during operations on the periphery. It was necessary to tie the animal on its back, during the dissection, to restrain its intelligential motions.

The heart remained *in situ*, nearly four hours; in the meantime, all its annexing vessels had been severed—its associated organs removed, without destroying its pulsatory action, which, in four hours, declined from 36 to 16 per minute. It was roughly handled; its blood emptied out; it underwent pressure and considerable desiccation, but was still active when the observations ended. On other occasions, I have observed the continuous action of this organ, for seven hours, proving that the favorite assumption of physiologists concerning the blood, as being the necessary stimulus to the heart's motion, is an error. There is a simpler explanation, namely, the inherent force of that hollow muscle itself.

June 5th, 1848.—Dr. Young, Mr. Barbot, and myself, performed the following experiments on an alligator three feet and seven inches in length, occupying a period of seven hours, during the greater portion of which, these gentlemen were constantly present. The animal was not very vigorous. It had a congenital mal-formation or deficiency,—

or, what is more probable, it had been early in life, mutilated by which, the entire tongue, and the whole flooring of the under jaw, were removed. The skeleton of the lower jaw was covered with a thin, white, dense membrane, all the soft parts having been removed. The animal was emaciated, and highly anemic; its blood was thin and pale, owing, doubtlessly, to the difficulty of catching and swallowing food, in the absence of the tongue, and the flooring to the under jaw. The animal was decapitated, and the great artery of the neck was ligated. On touching the lid, the eyes closed. It bit when a stick touched its teeth. On passing a wire into the foramen magnum, and breaking up the brain, these actions ceased. The sensational, intelligential, motory and volitional phenomena of the trunk, were the same as in the cases already described. About one hour after decapitation, a wire was passed down the spinal canal beyond the hind legs. By repeated manipulations, the texture of the cord was completely disorganized. The vigor and promptness of its intelligential motions were greatly impaired, but not wholly lost. During an hour after this destruction of the cord, punctures, or fire, caused slight motions of a definite character, like those before decapitation, but not constantly. The contractions of the heart were 48 per minute. The intestines, seven hours after decapitation, and five after removal from the body, presented, as usual, contractile phenomena, of a peculiar character.

August 20th, 1849.—*Experiments on two alligators; each about three feet long.* [Circumstances, not necessary to mention, prevented me from taking full notes, at the time of these vivisections. Doctors Cartwright, Smith, Nutt, Powell, Hire, and Mr. Barbot, were present, together with several gentlemen not of the profession—among whom was Professor Forshey.] The alligator, No. 1., was tied down on its back. The trachea was ligated in the middle of the neck. No blood was lost. The incision was closed with stitches, and strips of adhesive plaster. The animal was returned to its den, where it was found, apparently dead, about half an hour after. I proceeded to dissect the viscera for a few minutes, when, at the request of Mr. Forshey, (a learned and able cultivator of science,) the ligature was removed from the windpipe. The latter was opened. A tube was introduced into the opening. The lungs were repeatedly inflated by Mr. Forshey. The animal was, thereby, soon restored to life. I proceeded to demonstrate the viscera, and to remove the organs. After this was done, (which occupied about two hours,) the animal ceased to show any signs of sensation, or voluntary motion. It lived, after the ligation of the trachea, a much shorter time than decapitated alligators. The heart, both before and after its removal from the body, maintained its contractile motions, as long as observed, that is, for three hours. The apparent death from the tying of the trachea, in so short a time, was a result that I did not expect, because, I had often taken what I supposed to be effectual means to ascertain whether these animals breathed, when left undisturbed, but I never could detect them in the act of breathing, though, when alarmed or angry, they hiss and blow almost constantly. Baron Humboldt says, from personal observation,* that they live two or three days without respiration at all—*sans respirer de tout*.

* Diction. Decouv. t. iv. 226.

In this experiment, the animal did not appear to suffer but little, immediately, from the ligation of the trachea. Before the removal of the ligature, and the inflation of the lungs, life seemed quite extinct—the limbs relaxed—the body supple and motionless. If my recollection be accurate, the *incipient dissection*, (that is, before pulmonary inflation), did not elicit any sensational, or volitional phenomena. If this be so, (and it is worthy of being tested by experiment), it would seem that this form of death is more complete, than that by decapitation. After the latter operation, however, the removal of the lungs does not interfere with the phenomena, as already narrated.

Experiments on the alligator, No. 2 : (The same gentlemen, as before mentioned, were present :) The decollation was not followed by a projecting stream of blood, as is usual; no ligature was applied to the great artery of the neck. The dull hatchet used in severing the spine of the neck, had probably bruised the artery as in torsion and gun-shot wounds. Hence the hæmorrhage was not great, though considerable.

I carried the handle of the knife towards the eye, to ascertain whether it would wink, whereupon the ferocious, separated head, sprang up from the table with great force, at me, passing very near my breast, which received several drops of blood; it alighted upon the floor, from six to eight feet distant from its original position! It missed me, because I was standing at the side, and not in front of the head. Although, I have examined carefully, all the muscles of the head, I cannot find one that accounts for this feat of combative muscular motion. The angles of the mouth recede so much in this animal, that after decollation, including the medulla oblongata, the head seems almost like two separate pieces,—the superior and the inferior maxillary bones, being joined chiefly by the great masseter muscles, for only a short distance. These great muscles, (the masseters), which are curved, having their concavity anteriorly, are adapted only to vertical action, as in biting—the great muscles of the tongue act backward and upward against the palatine region :—whence then this quick, violent, forward motion, or rather, as in this case, diagonal leap of six or eight feet—for the head deviated to the left, where I was standing, evidently with the intention of biting me? The trunk, in this, as in all cases, possessed no power of forward motion. This curious fact with respect to decapitated animals, noticed by M. Magendie,* and other vivisectors, has been attributed to the *loss of the cerebellum*; but whether this loss of forward motion in the alligator, be owing to a division of the spine, and great muscles, or to the separation of the larger or smaller brain, or both, is not very evident, yet the fact which I have noticed respecting the forward motion of the separated head, is, perhaps, a circumstance favorable to this view. That a voluntary, spontaneous and powerful motion,—in fact a diagonal leap, should be performed by the separated head, must therefore appear astounding to one acquainted with the muscular organization. It is difficult to understand, how the cerebellum could thus act alone.

* Magendie says "Ce que j'ai remarqué jusqu'ici de plus constant, c'est que le cervelet semble nécessaire à l'intégrité des mouvemens en avant." (Jour. de Phys.)

For about two hours, the headless trunk of the last mentioned alligator, exhibited such phenomena as are usually attributed to the brain, namely, sensation, volition, and intelligent motion, as tested by the application of bits of ignited paper, wounds, and the like, whereupon, the usual indicants of pain were elicited with great promptness and precision: it trembled, receded, rolled over, curved, placed its limbs accurately to the exact spot, and removed the offending cause. In certain places this was exceedingly difficult, as on the spine between or near the shoulders, or hips. It always used the limb the best adapted for the purpose. If the fire was too remote, as when applied to the tail, the whole body was thrown into the most favorable position, for the purpose of reaching, and removing the same. If the fire was placed on the table, in a position to annoy, yet without touching, the animal, as if endowed with sight, reached, and always accurately, to the exact spot, and either extinguished the fire, or removed it. As upon former occasions, if the animal found that the fire was continued at the same spot, and that it could not remove it, which was sometimes the case, owing to continuous, or repeated applications, and carefully manœuvring, it curved the body—scratched violently, manœuvred skillfully, and then as a last resort, rolled quite over, laterally, always *from*, never *towards* the fire and operator.

After these experiments had progressed for some time, Dr. Cartwright desired me to cut off the neck close to the shoulders. This was done, but the intelligent, sensational, and volitional motions continued as before.

These experiments, not to name others on alligators, and a vast many made on human subjects soon after death, clearly prove that the fundamental principle of the reflex doctrine, is erroneous. For, according to this doctrine, even convulsive, unmeaning, or involuntary motions, can not be effected, except by irritating some portion of the *particular arc of nerves* distributed to the *particular part or limb to be moved*. Thus, galvanic, or other irritation of the spinal nerves distributed to the forelegs, could not affect those sent to the hind legs, but must be reflected precisely, from that portion of the cord, whence the nerves originate. Just the contrary, of this mechanical theory is true; for a lighted match applied in the course of the cervical, dorsal, lumbar, or sacral arcs, will call into play muscles and motions of an adaptive character throughout the entire muscular system, including the caudal extremity, which latter will be curved, if necessary, to the animal's purpose, while, in many cases, both the fore and hind legs will, in common, be called into active requisition. The fundamental doctrine of reflex physiologists, namely, that any portion of the muscular system must cease to have contractility, when the corresponding part of the spinal cord is destroyed, cannot be true. In his vivisections upon the roots of the spinal nerves, Magendie says that no effects were produced *except in the limb to which the bundle of nerves is distributed*: "*Quand on coupe a la fois un faisceau de racine posterieure, il se produit un mouvement de totalite dans le membre ou le faisceau va se rendre.*"* It is difficult to see how physiology can rest on such unmeaning experiments. It is no wonder

* Jour. de Phys.

that Sir Charles Bell closed his life, by *abjuring such experiments*, though it is now *naively* said by his friends, (!) that he did wrong in this, as it destroyed the foundation of his supposed discovery of the double functions of the nerve-roots.

The destruction of the cord after decapitation is, it must be confessed, a quick method of destroying what is popularly called life, and with it nearly all voluntary motion; but this destruction in the human subject, at least, leaves the elementary contractile function for hours unimpaired. These functional motions, as flexion in the arm, do not act blindly, irregularly, convulsively, but respondent to appropriate percussions, *without being influenced by the integrity, or destruction of the spinal marrow and nerves*—a fact totally subversive of the reflex system:

Dr. Marshall Hall expressively says, that the *destruction* of the spinal cord prevents "*all contractile phenomena; the limbs become relaxed; are no longer obedient to stimuli; become perfectly flaccid; lose all their resiliency; the sphincters lose their circular form; become lax, flaccid, shapeless, &c.*"*

As yet, I have not been able fully to elicit in the alligator, that variety of post mortem contraction, which I have described as belonging to the human subject—contractions, functional, and appropriate to the muscles percussed, but, doubtlessly, always without sensational or volitional. These forces, and their dynamical laws may differ greatly. Is it not probable, however, that man, soon after decapitation, would display phenomena similar to those in an alligator for a short period? Historic-al accounts could be referred to, showing that the lips of decapitated persons have uttered whispers, or manifested motion like that of a whisper.

Dr. M. Hall maintained with the greatest pertinacity, as the very foundation of his system, that sensation and volition belong exclusively to the brain; that "the presence of the medulla oblongata and spinalis is necessary to the contractile function of the eyelids, the submaxillary textures, the larynx, the sphincters, the limbs, the tail," &c., and that decapitation prevents all *voluntary* motion, even in the heads of animals. He insists that all motions after decapitation are reflex, involuntary, and without sensation, and that the distinguishing test of this excitomory system is, that "*the motions are always excited—are never spontaneous,*" as if voluntary motions were not excited, too. "By excited motions," Dr. Hall means, motions excited by contact, pinching, &c., and that *contact* is necessary in *all cases*. Now, I cannot answer for the English turtles upon which Dr. Hall experimented chiefly, but I will say, that the decapitated crocodiles of Louisiana can, *without contact*, wink, open their mouths, and even leap towards their enemy, though, of course, the *blind trunk* cannot see how to do all this anterior to contact. Indeed, under such circumstances, motions *anterior to contact* would be regarded *involuntary*. The separated head displays, at the same time, both voluntary and involuntary action. Sight and touch both are informers or excitors of volition, while the action of the iris, of the heart, intestines, &c., are, as in the unmutilated animal, *involuntary*.

Dr. Hall, and his followers, glory in this piece of logic, as the grandest of the excitomory system, namely: that all excited muscular actions are involuntary! This system, discussed and entombed in the last century, disinterred and adopted in the present, rests upon this monstrous assumption, which can only apply to motions wholly physical, as action and reaction, by contact. Dr. Hall, who grows more and more solemn in his meditations upon this supposed discovery, concludes, in a late number of the *Lancet*, his paper on "*trachelismus*, and its *reflex action*," and modestly upbraids the present, and hails the wiser, purer, and brighter Future, thus: "I am," says the Doctor, "quite aware that neither the professional nor the public mind—they are indeed nearly on a par—are raised sufficiently for views so rational. But, then, *I do not write for the present day*; and the day will come—and I shall promote its advent."

Dr. Carpenter, an admired physiologist, is deeply imbued, not to say enamored, with the reflex logic, particularly that part of it relating to these *excited actions*. He says, that "the actions performed by the spinal cord, are of a purely *reflex* nature—consisting in the excitement of muscular movements, in respondence to external impressions, without the necessary intervention of sensation.* Dr. Carpenter is sorely puzzled by the movements in a decapitated frog, which retracts its limbs, &c., when irritated. He denies that there is any feeling or volition in this case, "because such an inference would be inconsistent with other facts"—he ought to have said, theories. "These movements," he says, "are all necessarily linked with the stimulus that excites them. An animal thus circumstanced, may be not unaptly compared to an *automaton*; in which particular movements adopted to produce a given effect, are produced by touching certain springs."† Now, the phenomena which I have described are, in every particular, an absolute contrast to Dr. Carpenter's exposition—not "in respondence to external impressions"—not "necessarily linked with the stimulus that excites them"—not "*automatic*"—not such as "take place by touching certain *springs*." That logic has reached its utmost dilution, in assuming that there can be no volition in these phenomena, "because such an inference would be inconsistent with other facts." What law of merely automatic, or physical mechanics, or dynamics, is not palpably opposed to these phenomena? Is not physical motion uniform—*rectilinear*—opposite and in proportion to the stimulus or impressing force? Is the action and reaction equal in contrary directions?

The same author maintains, furthermore, that even these automatic movements, when the cord is divided, "do not exhibit any *consentaneous motions*" in the parts above and below the division, and that "the same stimulus will always produce the same movement." The whole of this enumeration is, if I may judge, erroneous. Dr. Carpenter is led into all these difficulties by the word *stimulus*, not being able to see how an act excited by a *stimulus* can be voluntary—I am still more puzzled to see how it could be anything else. I knew a blind man, very choleric and very stout, who was a great bully, and generally whipped his enemies severely, but he never was able to tell

*Phys. §875 †Ib. §876.

his enemy by instinct, nor automatically, without a *stimulus*, as contact, or the sound of the voice. I adopt the method of reasoning directly opposite to that of Dr. Carpenter. If a decapitated frog act without a *stimulus*, the action is, probably, an involuntary, or a foolish one. What action of a rational man is not due to a *stimulus* of some kind—be it honor, wealth, pleasure, or pain? A *stimulus* is, according to Webster, “a goad; something that rouses the mind; as the hope of gain is a powerful *stimulus* to labor.” Is it possible that any right thinking physiologist can assert that the application of a bit of ignited paper to the headless trunk, by which all the above described actions are elicited, must act *automatically or physically, without the intervention of sensation and volition*? Can the imagination conceive any stronger proofs of feeling and willing, especially in a deaf, dumb, and blind animal, that has, moreover, lost the power of rectilinear progression?

As decapitation removes all the organs of the special senses, the trunk cannot see, hear, taste, nor smell. Stimuli adapted to these senses, must be inoperative, unless they are, at the same time, suited to the general sense, that is, to the touch of the sentient trunk. This latter cannot act so as to develop voluntary motion, without contact; but there is nothing whatever, in this sort of contact, which is suited to the generation of mechanical or automatic motion. The force or stimulus of steam, or gunpowder, does not give boilers or guns, subsultus, cramps, convulsions, or lock-jaw, much less understanding, volition, or voluntary action. Dr. Fordyce, upon the subject of muscular contraction, says, “The original motions are produced by volition, ideas of the mind, or certain *external applications, called stimuli*.”* Thus decapitation (I must repeat the statement) deprives the trunk of four out of the five senses. The sense of touch only remains. How the reflex physiologists, or, indeed, any but sciologists, could expect, what they call *spontaneous or voluntary motions in the trunk, without a stimulus or contact*, is passing strange, not to mention the ineffable absurdity of construing the motions arising from a stimulus or touch, as involuntary. Blumenbach has truly said, that “the touch which is affected by external objects, is less fallacious than the rest of the senses, and by culture capable of such perfection as to supply the defects of others, particularly of vision.” (Phys., § xiii.) The blind require the stimulus of raised or salient letters, in order to read; but are these excited actions, and all the mental phenomena hence arising automatic, involuntary, excito-motory? The horny, scaly skin of an alligator, strange as it may seem, has an exquisiteness of touch, but little short of that enjoyed by “the snowy hands of a delicate girl,” to use Blumenbach’s comparison.

An infant has not the skill that a decapitated alligator has in removing a pain-giving irritant. A child puts its finger into the flame of a candle—a crazy man eats a glass bottle with fatal effect—a patient makes many awkward attempts to reach the instrument while under the process of trephining. In the alligator, after decapitation, the same stimulus does not always produce the same identical, inmechanical motion as in an automaton, but *varied*, yet not convulsive actions. Sometimes

the animal uses one leg, sometimes both; sometimes it recedes by curving its body; sometimes by rolling over, and sometimes, by striking with its tail, while the separated head watches its enemy, and bites in the usual manner, not automatically, but for good reason, or what is the same thing, on account of a stimulus, as anger, contact, etc.

Anterior to *contact*, no one could expect in a decapitated animal, intelligent spontaneous action, upon either experimental, or transcendental principles. The stimulus of sound warns a blind man of danger, as on approaching the precipices of Niagara Falls—one blind and deaf, would step over the same fearlessly,—but, if conscious of the fact, he shall in his descent, lay hold of a limb, and remain air-hung and breeze-shaken, until his friends come to his relief, surely, his actions, stimulated by fear, must be regarded as voluntary. A headless animal performs actions essentially of the same kind. To call one class of phenomena *spontaneous* and *voluntary* and the other *involuntary*, or *excito-motory*, is a palpable contradiction to all experience and reason. The Reflex school takes for granted that all excited motions are involuntary; whereas, the opposite proposition is true, namely, that nearly all voluntary motions are excited, very few arising spontaneously, (to use a doubtful phrase)—few that do not arise from a present or prospective good—a present or prospective evil—a material want, or a material gratification.

Why should adaptation, contrivance, design, consentaneity, simple and compound motions go for nothing, simply because the animal has been so unfortunate as to lose its head, and all of its senses but one? Can a blind man see the rainbow?—a man without legs, dance the Polka? I incline to think, that the headless trunk has memory; for after the first irritations, like a burnt child, it dreads the fire, and makes increased efforts to remove the irritant, though it may be but a slight one.

If a stone were to manifest feeling, willing, contrivance, design and voluntary motion, that is, the elementary manifestations of mind, it follows, unavoidably, that this stone has a mind, higher or lower, it may be, than that of some other sentient beings. Now, if this stone be divided, and if each division displays essentially the same phenomena, it follows, that each has a mind, though this conclusion may not be a phrenological one; for the fundamental principle of the Gallian school is, that the brain is the exclusive organ of the mind; and, consequently, it is essential to mental manifestation, sensation, intelligence, volition in both human and comparative organizations—in both human and comparative psychology. Mr. Alex. Walker defines the mind wholly by the nervous matter: he says, “by mind, I mean the nervous functions common to man and animals.”* While M. Victor Cousin defines the mind by one of its faculties, thus: “The will alone is the Person or the Me. The Me is the centre of the intellectual sphere.” Dr. Gall exclaims, “God, and the Brain!”

Mr. Solly defines the mind or its seat, as the cineritious portion of the hemispherical ganglion.

That such expositions should be made with all the confidence of

demonstration, and be received with alacrity, is surprising. Even the monstrous technology of the reflex school, instead of retarding, seems to accelerate its progress, though history shows that neology, verbosity, pedantry, jargon and assumption, instead of being the characteristics of the era progression and discovery, choke up the pure stream of knowledge, and as in the dark ages, even prevent us from knowing our ignorance, by substituting barbarism for philosophy. Even the love of truth may, and often does lead into errors. The human mind, wearied with uncertainty, clings to any plank that drifts along within its reach. To rely on mere words is less wise. The mind delights in symmetry and strength, and having made up its bundle of opinions, joined with the cord of theory, it cannot draw out one, without weakening and deranging the whole.

Lest the first experiments in this series should appear "manifestly absurd," and too novel for belief, it may not be amiss to remind the reader, that Dr. Wigan, in 1844, published in London, an octavo, having for its title, "The Duality of the Mind, proved by the structure, functions, and diseases of the Brain." Without going into the metaphysical arithmetic of the Duality, or Trinity of crocodilian minds—without affirming with the ancients that reptilians are types of wisdom, it may be asserted in a physiological point of view, that nothing is known of the mind, except through materialistic phenomena. Mind in itself, in its immaterialistic constitution, in its disembodied form, as a specific entity, distinct, and apart from matter, eludes physiological, phrenological and metaphysical research.

The diffusion of sensation and intelligence, together with a multiform volition, may be called by the physiologist, "a manifest absurdity," by the phrenologist, a manifest impossibility, and by the psychologist, a manifest blasphemy; but the experimenter may mutely point to a divided animal; one part on the right side of the table, manifesting intelligential motions, while on the left side, the other part manifests identical phenomena; both parts of the body, according to the exigencies of the case, acting voluntarily, but in different times, velocities, directions and modes. The "manifest absurdity" in this case, lies not in the multiform character of volition, but in the conclusion that all the manifestations of the head are mental, while the *same manifestations* in the trunk are only *anatomical, physical, instinctive*. But, even this distinction explains nothing, for there is as "manifest an absurdity" in *two instincts* as in *two wills*. The experimentalist may rest assured, that hard words, great names, and dazzling syllogisms cannot destroy palpable facts, nor produce physiological outlawry at this enlightened day.

Galileo, to escape the tortures of the Inquisition, was forced to swear that all his splendid discoveries of the planets revolving around the sun, were so many blasphemous heresies and lies, and that the solar system did not *move*; but an observer who was present, saw him stamp his foot on the earth, and heard him mutter, in a low tone: "IT MOVES, NEVERTHELESS!"

On the whole, it may be safely concluded, that voluntary motion is neither directly communicated from, nor regulated by the brain, or the cerebellum; that the muscles, in connection with the spinal marrow,

perform voluntary motions for hours after having been severed from the brain; that these motions are not only entirely independent of the brain, but may take place, though imperfectly, after the destruction of the cord itself; that the trunk, as well as the brain, thinks, feels and wills, or displays psychological phenomena; that the *sensorium* is not restricted to a single point, but is diffused, though unequally, or in a diminished degree, in the periphery of the body; and that actions which take place after decapitation, as described above, are in absolute contrast to *reflex actions*, being sensational, consentaneous, voluntary, and in other respects, dissimilar.

IV.—ON THE *Topography, Climate, and Diseases of Selma, Alabama.*

Read before the Alabama Medical Association, on the 7th and 8th March, 1849. By C. E. LAVENDER, M. D.

THE town of Selma is situated on a high, sandy plain, on the north-west bank of the Alabama river, in lat. 32 deg. This plain, of a mile or more in extent, is much higher than the adjacent country that immediately surrounds it. On the west, Valley Creek, at the distance of one mile, makes its way through this plain, and finds its bed deep in the limestone formation, that underlies this whole plateau, at the depth of from 20 to 40 feet. On the north, at the distance of a mile from the river, the face of the country recedes and forms an extensive level of rich alluvial soil, interspersed with lagoons and marshes, till, at the distance of two miles, prairie soil, more undulating and diversified, sets in, and extends 3 or 4 miles to the low grounds of Valley Creek. On the east, the face of the country is almost a dead level, for 6 or 8 miles. Beech Creek, which comes down from the north-east, forks in its downward course, forms an island two miles wide and four long; this too, is covered, to considerable extent, with marshes. North and east of this swamp, the country is high and broken.

It will be judged at once, that such a location as this cannot be remarkable for its health. The changes which the face of this country underwent at its first settlement, some 25 or 30 years ago, were such as to create a perfect laboratory of miasm; immense quantities of vegetable matter, in a state of decomposition, being exposed to the action of heat and moisture. Bilious fevers, of an open remittent and intermittent type, followed in abundance. A successful system of drainage and culture has been in operation for some years past, which has rendered most of the circumjacent grounds dry and arable—soil inured to the sun, vegetable matter in a measure consumed, sources of miasm removed, and it is confidently believed that Selma is now one of the healthiest locations on the river. Indeed, for the last few years, it is questionable if a like number of inhabitants can be found any where, who have enjoyed better health than the citizens of Selma;

to such an extent is this true, that such a thing as the sickly season is hardly known among us.

With regard to temperature, it is doubtful whether there is, any where on this continent, a more even tempered and salubrious clime for the invalid or weak lunged, than this valley of the Alabama, taking the year round. During the summer, the mercury very seldom rises to 90 deg. in the shade, and in the winter, as rarely sinks below 30 deg. Shut out, by distance and immense forests, from the damp sea breezes of the gulf, it is yet fanned by the wing of the trades, so as to be delightfully pleasant during the summer. On the other hand, this valley lies so far to the South, and so distant from mountain ranges—those vast refrigerators of the north and west—as not to be visited in winter, with very great intensity, by those chilling blasts that prove so disastrous to weak lungs. Consequently, winter diseases—consumptions, pleurisies, &c., seldom prevail to any great extent here, and during the past winter have been almost unknown. True, pneumonia has prevailed to some extent here, in former years, but was not marked by high inflammatory symptoms, but assumed rather a typhoid type. There is a fact connected with location that is worthy of notice: that, during the whole year—but especially during the winter months—children suffer very much from croupy and bronchitic affections, whenever easterly winds prevail. These winds come down the river, and may be loaded with moisture. This fact, however, appears to me inadequate to account for the prevalence of these affections. The observation of 18 years' practice in this valley and the neighboring highlands, has established, in my mind, the fact, that an easterly wind, or rather a southeasterly wind—for it seldom comes direct from the east—is an unwholesome wind. In summer and autumn, it is freighted with fever, generally of the prevailing type, though it often adds to its malignant character; in winter, with croups and bronchitis; in the spring months with exanthematæ and influenzas. It is, all the year round, decidedly the most unwholesome wind that blows. 21

In the treatment of these fevers that prevailed in the early settlement of the country, depletion was carried to considerable extent. The lancet, tartar, calomel, &c., were freely tolerated; and were regarded, by many practitioners, as the most reliable and successful remedies. As the country grew older, morbid causes appeared to subside, or to assume a modified character. Change marked the features of the prevailing fevers, commensurate with the country's changes. 9/

From the year 1834, to the present time, fevers assumed and have maintained a lower or congestive type; requiring a more stimulating and sustaining treatment. Although comparatively few cases of fever may properly be termed congestive, yet, there is a tendency in the type of fevers, generally, to run into that form; consequently, now, the lancet is never thought of, unless there exist some organic inflammation, in which case topical is, in our own autumnal fevers, preferred to general blood-letting,—and tartar emetic is very generally repudiated. Instead of these means, mild mercurial cathartics and quinine are now generally resorted to; and if there appear symptoms of congestion, camphor, brandy, and other stimuli, internal and external, are employed. Change in

the type of fevers, forced this change of treatment upon practitioners, often against their will, for they repeatedly witnessed the most disastrous consequences from the use of those means, which had, in former years, proved most successful. In all this, our country has not been singular. The history of most countries, indeed, proves that a change, in the prevailing diseases, takes place with the changing features of the country, as civilization advances. Looking to these lights, we may very surely expect to see still further changes present themselves, in the prevailing epidemics of coming years. An important pathological feature has, already, begun to develop itself. During the past year, well marked cases of *Typhoid Fever* have presented themselves. Some of these cases came under my own observation, and left no doubt, on my mind, in relation to their true character. No case of this type, however, has, to my knowledge, originated in Selma. A number of cases were brought to the place, all of which recovered. In Summerfield, a small village 9 miles north of Selma, some 20 or more cases occurred. These cases were confined to a few families, and to a circumscribed part of the village, where certainly no local causes could be pointed out, to account for the prevalence of typhoid fever. I saw some of these cases, and hope the Association will be furnished with a full report of this unusual and interesting visitation, by some one of the attending physicians.

Until within a few years past, this form of fever has been a stranger, or entirely unknown among us. Its existence has been acknowledged, however, in several places, in the great valley of the Alabama, within the last year or two, and, judging from its history, as it has presented itself in other countries and in other parts of the United States, little doubt can be entertained that it is destined, ere long, to be a frequent visitor among us, if, indeed, it should not be a prevailing form of disease. It is, therefore, a subject of vital interest to us at the present time. The eye of our profession should be fixed upon it, that its movements may be carefully watched, its features, in our latitude, clearly developed, and its advances met with appropriate remedies.

As regards the relative liability of races and sexes, to suffer from prevailing fevers, I beg to offer, as the result of my observation in this valley for the last 18 years, that whites are much more likely to be attacked, especially by fevers of a malignant character, than blacks; that mulattoes, in proportion to their number, suffer more and recover less promptly than either; and that males are more susceptible than females, and that deaths in males are at least two to one in females.

The limits of a report, like this, will not allow me to offer many remarks on the meteoric phenomena of the past year; nor do I suppose that I would be able to interest the Association by showing, to any very remarkable extent, their connexion with pathological developments.

The last week in May and the first in June were very hot and dry. On the 25th of May, I saw a well marked case of congestive fever. No case had ever presented itself to me before, so early in the season, by several weeks. The patient was a young man of good constitution, who had been bathing, and remained too long in the water, and was, therefore, in some sense, a case of *hydropathy*, the bathing acting, doubtless, as an exciting cause on a constitution predisposed to fever.

Case was obstinate, but recovered. The first two days of July were very warm, mercury rising, at its maximum, over 90° in the shade. Heavy rains, attended with heavy electrical phenomena, moderated the heat, and soon rendered it comfortable. The mercury, at its maximum, ranged about 80° during the month. But little fever, or indeed, sickness of any kind, appeared. The same may be said of the month of August: 4th day was its hottest, the mercury rising to 90° . The 3d of Sept., was the hottest day of the season—maximum $94^{\circ} 30m$; 4th, 93° ; 5th, 92° . Showers followed, and cool mornings succeeded. During these days, some cases of intermittent of a congestive type presented themselves. Bilious affections, during these months, were rare. Nervous disorders prevailed to an unusual extent. Drs. *Fair* and *Mabry* had, under treatment, three cases of chorea at one time. A number of cases of intermittent neuralgia came under my care, some of them complicated with other disorders. They all yielded promptly, after chylopoietic derangement had been corrected, and the secretions set right, to a combination of quinine, morphine, and extr. of bella-donna.

A case of camp fever, in a young volunteer, returning from Mexico, came under my observation. The case presented all the features of camp fever—great and long continued emaciation; marks of weakened innervation and disordered secretions, etc. Although the case did not propagate itself, yet, the peculiar, strong and offensive smell which characterized it, may have marked its infectious character. So remarkable was this fœtor, that it was strongly sensible in the room where the patient was confined, for more than a month after he left it, although the apartment was repeatedly washed and daily ventilated. This circumstance may account for the fact, that persons sometimes contract ship fever, or other infectious diseases, who visit places where they have prevailed, after the epidemic has ceased.

The month of December was remarkably mild and healthy, there being but two frosts during the month, one of which occurred on the last day. During these days, some cases of malignant cholera appeared on our river. On the 7th of January, a well marked case of cholera presented itself in Selma, in a young man who had, the day before, arrived from Mobile. The case presented but one stage,—that of collapse. There was nothing peculiar about the case; nor was there any feature wanting to identify it, or to obscure its diagnosis. I saw the case at 2, A. M. The patient had been ill two or three hours. He was in hopeless collapse, but lived five hours longer. Nothing that was done appeared to work any change in the case. Although Drs. *Gee*, *Morgan*, and myself and attendants were with him all the time, no one suffered; showing its non-contagious nature. Yet this is no evidence in disproof of its infectious character.

Not doubting that the Association will be presented with cases, facts, etc., in relation to this interesting disease, by some of its members whose opportunities for observation have been better than my own, I offer this case, simply, to note the fact, and to introduce another and very interesting feature in *pathological* etiology—I allude to that class of diseases, or, rather, to that feature in the prevailing diseases, which manifests itself during the prevalence of the poison which causes cho-

lera, known to the profession, as cholérine, or choleroïd. The plan of a report like this will permit only a cursory view of this feature, as it came under my own observation, in the district under examination.

In 1832 and '33, during the prevalence of cholera in the United States, the field of my labors lay 30 miles south of Selma, yet my observation, at that time, extended over most of the district now under consideration. At that time cholera was an unknown enemy in our land; the extent of its ravages could be measured only by what it had done in the Old World; consequently, its first appearance in our country created much more alarm than now. At that time, the *Thompsonian* cholera also prevailed very extensively, in this country, and proved much more obstinate than its *Asiatic* compeer. It made a desperate struggle, but when it died, unlike asphyxia, it sunk into the grave without the hope of a resurrection. But at that time it was powerful and its champions numerous and daring,—and, as “*similia similibus curantur*,” the Indian hydra soon yielded the victory to its more potent rival. That cholera, at that time, prevailed extensively in Lowndes and Dallas Cos., I have the strongest evidence that could be offered by the Th. Faculty. They were curing cholera cases by scores—cases, too, of the most desperate character. My worthy friend, Dr. K., who at that time wielded a most quixotic blade, was especially successful in meeting and vanquishing, in the most chivalrous manner, the dreaded foe. One case in particular, I well remember, he related to me with marked satisfaction. A young man of dissipated habits was attacked with cholera in Selma, and, in due course of time, fell into collapse; in this collapsed condition he crossed the river, and walked 28 miles to the doctor's Thompsonium. By that time, as may be supposed, he was a pretty bad case. Nothing daunted, however, our hero made a thundering attack with steam and lobelia, capsicum and No. 6. In less than two hours the Dr. had the satisfaction to see his patient, not only well to do, but cured—cholera vanquished, collapse and all. Cholera could not stand up against such odds, and soon left the South. Some attributed its discomfiture to pine trees, some to the cotton plant, but my friend the doctor, with an air of triumph, pointed to steam and lobelia.

The sober truth, however, in the premises is, that choleraic affections prevailed in this country extensively during the time of the existence of cholera in the north and west. Not only was there a vast number of gastro-enterites, cholera morbus, and every variety of disordered stomach and bowels, but the peculiar morbid cause—whatever it was—seemed to give type to the prevailing fevers, marking them with unusual disorder of the digestive organs, sometimes attended with cramps; though no well marked case of malignant cholera occurred in all the land, so far as my information went.

During the last two months, but more especially during the month of January, similar pathological phenomena presented themselves extensively. My friend, Dr. Mabry, states that there occurred in his practice, more cases of gastro-enteritic disorders than he had ever met with before—many cases putting on choleroïd symptoms. In my own limited practice, I have met with a number of cases of a similar character. The case of cholera above referred to, occurred on the 7th of January.

On the 13th, a gentleman of steady, temperate habits, was attacked, after an ordinary meal, with sick stomach and vomiting; complained of severe pains of an intermittent character in the stomach and bowels, followed by purging; cold extremities; purple shrunken appearance of features and surface generally; some cramps in the gastrocnemii; soreness of the muscles; aching in limbs and back; tongue dry and somewhat clammy, but little thirst. Suffered severely from a similar attack in 1833, when cholera prevailed in the United States. On the 14th and 15th, I attended three cases of a similar character, in one family. For some weeks such cases presented themselves almost daily. The attack was usually brought on by indulging too freely the gastronomic propensity. Fresh pork and oysters were prolific causes of these choleroïd cases.

The treatment which I found successful was quite simple. The patient was put to bed; hot applications made to the extremities; the whole abdominal region well rubbed or bathed with spirits of camphor, tincture of opium and capsicum; a flannel thickly folded, made hot and applied after the bathing; blankets or quilts thrown over according to the feelings of the patient. At the same time, one eighth or one fourth of a grain of morphine, with some aromatic cordial, was administered and repeated in one or two hours, until the urgency of the symptoms was relieved, when a mild mercurial cathartic restored the secretions. The urgent symptoms yielded usually at once, or in a few hours; and disappeared under the action of the mercurial. A few days of prudence in regimen, dieting, &c., completed the cure.

On the 8th of February, the following case occurred: A young lady had taken cold and had several chills, followed by some febrile excitement—had taken medicines—was recovering—had that forenoon taken three quinine pills. In the afternoon, she was attacked very suddenly with emesis, followed by watery catharsis, attended with rigid cramps in the hands and arms, cold extremities, and pains in the back and limbs. Hot applications were made, hands rubbed, and brandy and camphor, tincture ~~opodeldoc~~ administered. The attack yielded in less than an hour, and did not return. It was several days, however, before she was up. This pathological feature has now entirely disappeared from the country. The poison which causes malignant cholera appears to be diluted, or somehow weakened so as not to be sufficiently concentrated to produce asphyxia, and yet virulent enough to cause disorders of a choleraic character. From the fact that this form of disease, decidedly of a mild type, has prevailed in this country on both occasions when Asiatic cholera visited the United States, and that malignant cholera has not reached us, I am rather disposed to view it favorably, as indicating that the malignant cause, whatever it may be, has in a measure lost its power to do serious harm. When cholera invades a place, its first blow is usually its most fatal*—its fatality decreasing during its continuance, until its type becomes only choleraic. If its first demonstration be mild, it is certainly not so apt to become malignant, and in the instances before us, has soon entirely disappeared.

* This opinion is not unanimously entertained by the profession.—Ed.

The weather, during the month of January, was mild and pleasant. Second week in February, remarkably cold—from the ninth to the fifteenth there was frost, with some ice. On the eighteenth, the mercury stood in the shade at 19 deg. till ten o'clock, 29 deg. at two P. M., and 25 deg. at sunset. On the nineteenth at sunrise 14 deg., and on removing the thermometer into a current of air, it stood for sometime at 12 deg., (the lowest degree since 1835,) clear and still—40 deg. at two, and 30 deg. at sunset, when pleasant dry weather again followed. Colds, bronchial affections, prevailed after this for some time, which have not yet subsided.

V.—REPORT on the Diseases which prevailed in Mobile, for 1848.—

With an alphabetical list of the same appended. Read before the Alabama State Medical Association, March, 1849. By A. LOPEZ, M. D.

The Spring of 1848 was characterized, at *Mobile*, by an unusual display of cutaneous diseases, and by more than its ordinary supply of contagious epidemics, such as *Scarlatina*, *Rubeola*, *Pertussis*, and *Parotitis*.

Scarlet Fever prevailed throughout the entire year, unchecked or unmodified by any other epidemic, which may have been cotemporaneous with it, except (as will be seen by reference to the Tabular Statement appended) the yellow fever. By the bills of mortality it will be perceived, that as soon as the deaths from this last disease increased in number, those from scarlet fever decreased, and so continued until November, at which time the yellow fever left it an uncontested field, when it renewed its ravages. Its *type* varied from the most harmless form of scarlatina simplex to the most malignant and fatal character, attended with the most severe anginose affections. In many cases the parotid glands were affected at a very early stage of the disease, and were so tumefied as to impede deglutition for several days, and seriously to threaten suffocation. The usual *sequelæ* of effusion in the various cavities and general anasarca, accompanied the majority of cases, although to some there were none. From all that your committee can learn, very few escaped glandular enlargement. In one case mentioned to your committee by Dr. Woodcock, the pinnum adami was hardened and tumefied to suffocation.

The disease was still prevailing up to the completion of this Report, and with extreme severity. We see no deaths reported from scarlatina until May, from which time to the present, they amount to eighty-eight. The greatest mortality appears in November, December, January and February.

Rubeola, in the practice of many physicians, was complicated, more especially with pneumonia. To one gentleman, there occurred two instances of second attacks, at intervals of sixty days between the primary and subsequent attacks. There were also two distinctly marked cases

of *rubeola sine catarrho*. The mortality was as follows: May, five deaths; June, two; July, four; August, one: *Total*, twelve.

Pertussis during the months of April and May proved violent, complicated, and in some cases intractable. The disease continued with us to September, up to which period the mortality was. April, two deaths; May, three; June, eight; July, three; August, three; September, one: *Total*, twenty.

Parotitis was general, but unimportant in its type or results.

Some few cases of *ship fever* were said to have occurred, but their number and consequences requiring no special notice.

Yellow fever was announced by the Board of Health, as early as July, in one or two sporadic cases, but it did not fully develop itself until *August*, at which time we see the first death reported, and from that period to the 1st of November, there occurred only twenty-five deaths, to wit, August, six; September, thirteen; October, six; *Total*, twenty-five. The short duration of the disease, and its modified and moderate form this season, may, your committee think, be attributed to the appearance of another disease, which seemed to usurp its place, and prevailed in its stead, with every essential of an epidemic. This disease was by many of our practitioners called the *Dengue*, and so announced by the public Journals; but your committee, with deference, are disposed to record this innovator rather as the diminutive of the yellow fever, modified by controlling influences of concurrent diseases, with which our atmosphere was at this time surcharged. The *Dengue* proper, such as described by observant writers in this country and at *Caleutta*, as well as at the *Havana*, from time to time, gave assurance in every instance of its being essentially a *marked cutaneous disease*, presenting all the forms of invasion, progress and sequelæ belonging to that class; whereas, the substitute now under review could not, nor did not, strictly fall within this category. Call it, however, by what name we may, the disease, although inconvenient and highly painful, yielded, with very few exceptions, to the most simple means, and those chiefly dietetic. The few exceptions alluded to simulated very closely the prodrome of yellow fever. Perhaps it could receive no more applicable title than Broken Bone Fever.

Asiatic Cholera made its appearance in December, and resulted, from that period to the present, in seventy-six deaths. The mortality in January by the disease was fifty-one. The other two months, thus: December, six; February, nineteen. The greater proportion of cases were derived from our river boats, yet with a few of our physicians they were of city origin. Your committee have heard of no cases originating on any of the boats plying between Lake Ponchartrain and Mobile. No proofs of contagion have been recognized. The paucity of cases, for our population, may doubtless be ascribed to the strict precautionary measures, both public and private, as well as to the favorable physical character of our city, and its free ventilation. The class of persons chiefly affected were the poor, dissolute and intemperate, as also laborers much exposed to atmospheric vicissitudes, and inclemency of weather. Between these classes of persons and negroes, (who were very obnoxious to the epidemic) your committee cannot discover any

appreciable difference in the mortality, or attacks. Cases, however, were not wanting among those under better condition of habits and living, but very disproportionate to the classes first specified.

Influenza has been prevailing from the commencement of Autumn. It has been mild, and requiring very little treatment. Occasionally, cases would occur, evincing obstinacy, and a few with pneumonic complication.

Your committee have now presented a brief but comprehensive statement of the most prominent forms of disease, embraced within the period assigned to them. In omitting to detail cases or treatment, they have confined themselves strictly within their limits, which demanded only that they "take an account of the diseases which may *occur and prevail, etc.*" The other and more diversified forms of disease incident to all seasons and all populations, they have deemed more fit, both in point of economy of time and convenience of arrangement, to exhibit under an Alphabetical List, which at the same time will show the monthly mortality.

By this table, (appended,) there is seen a mortality from March, 1848, to March, 1849, as follows :

1848, March, - - - - 55	1848, September, - - - 73
" April - - - - 46	" October, - - - 66
" May, - - - - 72	" November, - - - 58
" June, - - - - 78	" December, - - - 82
" July, - - - - 101	1849, January, - - - 159
" August, - - - - 67	" February, - - - 85
<hr/>	
419	527
	419

Annual Mortality - - - - - 946

The number of deaths in January exceed, by a large amount, any thing for that month, within the recollection of our oldest practitioners. The disparity, however, will, by reference, be seen to arise from the concurrent existence of two epidemics, the Asiatic cholera and scarlet fever.

The following data, your Committee think, will not be devoid of interest to the Association, showing the earliest dates, at which the yellow fever appeared in Mobile from 1841 to 1848, inclusive :

1841, - - - October 12th.	1845, - - September 27th.
1842, - - - August 30th.	1846, - - " 9th.
1843, - - - " 19th.	1847, - - July 18th.
1844, - - - " 3d.	1848, - - " "

Before the close of this Report, your Committee feel themselves called upon to direct the attention of this Association, (and through this means, to medical gentlemen individually throughout the State,) to a defect in one department, intimately connected with our profession, so far as relates to its immediate reflection upon themselves, through the imperfect bills of mortality, issuing from the sexton. We refer to this in-

justice to ourselves, in consideration of the scattered, and in many instances, almost unattainable materials, from which we have with much labor compiled and arranged the alphabetical list appended to the Report. These bills of mortality, to which alone we are indebted for much that is valuable in Medical Statistics, are crude and certainly very unscientific. It is a Herculean task to gather those statistics from amid the unintelligible jargon, which invariably disfigure such reports. Where to locate the blame, your Committee know not, but when cases are reported as "Dropsy," "Hæmorrhage," "Child-bed," &c., it is certainly desirable to learn to what parts of the body the two first apply, and the peculiar form of the latter. And when he reports a man dead of "*Pelvic Disease*," we are surely entitled to his nosology. So also of "Aneurism;" the question is an interesting one, *where and of what kind?* And "*Disease of the Heart*" requires some specification. Again, there are reported, for the twelve months under review, *One hundred and Fourteen cases* a "Unknown." Now, this really admits of but two inferences, neither of which would readily be acknowledged by any gentleman jealous of his reputation. It must be the result of gross carelessness; but this scarcely extenuates the fault, for although a few cases, under accidental circumstances, might deprive the physician of the means of deciding, or the sexton of the means of ascertaining, still so large a catalogue of diseases ranked, in the advanced state of Medical Science, under an unknown head, will meet with few apologists. Then, we perceived several cases of "*No Doctor*," embodied in the caput mortuum, but the continuance of this nomenclature would, we think, suggest to an enlightened community, the idea, that *cause and effect had been most unfortunately confounded*.

In the list of interments, the same diseases are reported in the same column under different names, some in the technical and others in popular phrases. To him, therefore, who seeks to inform himself on this valuable branch of Statistics, the labor and confusion are egregiously multiplied. Are not these facts of sufficient importance to claim the attention of this Association, and their efforts to some remedy? Your Committee urge this, because the Association has thought the duty worthy of a Special Committee. It may be but an act of justice in some measure to absolve the sexton from the burthen of responsibility in such cases, inasmuch as he can derive his information only from the professional attendant, with whom, your Committee are convinced, the error springs from carelessness alone. But, to say the least, it presents to the practised eye, a very unprofessional catalogue.

A special appeal, then, emanating from this Association, to the various Medical societies, in places where sexton's reports are prepared, would doubtless urge upon those bodies to make such arrangements among their members, as would establish a supervision over the weekly bills of mortality before they are published, a measure to which the sexton would surely oppose no objections, as he could have no interest in so doing.

Lastly: It would be instructive and satisfactory, in many points of view, if professional gentlemen generally, throughout our State, would ascertain whether cases of phthisis falling under their care, originate

with us, or are (as is too frequently the case) brought here for death and burial.

MOBILE, Alabama, March 1st, 1849.

Alphabetical Table of Monthly Mortality, from March, 1848, to March, 1849, in the city of Mobile, Alabama:

MARCH.			
Apoplexy,.....	1	Rheumatism,.....	1
Asthma,.....	1	Scrofula,.....	3
Aneurism,.....	1	Trismus Nascentium,.....	2
Convulsions,.....	6	Unknown,.....	8
Child-bed,.....	1	Whooping Cough,.....	2
Casualty,.....	1		—
Drowned,.....	4	Total,.....	46
Dropsy,.....	3	MAY.	
Fever, Typhus,.....	1	Arachnitis,.....	1
Fever, Typhoid,.....	4	Asthma,.....	1
Fever, Ship,.....	1	Consumption,.....	7
Gastro Enteritis,.....	1	Cancer of Stomach,.....	2
Haematemesis,.....	1	Cholera Infantum,.....	1
Hydrothorax,.....	1	Croup,.....	2
Influenza,.....	1	Child bed,.....	2
Inflammation of Stomach, [chronic] ..	1	Convulsions,.....	3
Old age,.....	1	Casualty,.....	3
Phrenitis,.....	1	Dysentery,.....	3
Pneumonia,.....	2	Dropsy,.....	2
Plithisic,.....	6	Debility,.....	1
Rheumatism,.....	2	Diseased Birth,.....	1
Still born,.....	2	Fever, congestive,.....	1
Suffocation,.....	9	Do. Worm,.....	1
Scrofula,.....	1	Do. Scarlet,.....	5
Teething,.....	1	Inflammation of Brain,.....	2
Unknown,.....	1	Do. " Bowels,.....	1
Womb, Diseases of,.....	1	Kidneys Disease of,.....	1
	—	Lock-Jaw,.....	3
Total,.....	55	Measles,.....	5
APRIL.		Marasmus,.....	1
Bronchitis,.....	1	Phrenitis,.....	1
Convulsions,.....	2	Pneumonia,.....	3
Consumption,.....	5	Pericarditis,.....	1
Dysentery,.....	2	Quinsy,.....	1
Dropsy of Heart,.....	1	Rheumatism,.....	1
Drowned,.....	3	Still Born,.....	3
Erysipelas,.....	2	Suicide,.....	1
Fever, Typhoid,.....	2	Sudden Death,.....	1
Intemperance,.....	1	Teething,.....	3
Inflammation of Bowels,.....	3	Tabes Mesenterica,.....	1
Do. " Stomach,.....	1	Unknown,.....	7
Do. " Spinal Marrow,.....	1	Ulcer,.....	1
Lock-Jaw,.....	2	Whooping Cough,.....	3
Old Age,.....	1		—
Pneumonia Typhoides,.....	1	Total,.....	72
Phrenitis,.....	1	JUNE.	
Peritonitis,.....	1	Aneurism,.....	1
		Consumption,.....	4

Cholera Morbus,	2
Do Infantum,	5
Delirium Tremens,	1
Dysentery,	2
Drowned	2
Diarrhæa,	5
Fever, Scarlet,	3
Heart, Disease of,	2
Hernia,	1
Inflammation of Bowels,	2
Do " Stomach,	2
Do " Brain,	1
Intemperance,	2
Measles,	2
Pneumonia,	1
Pericarditis,	1
Purpura,	1
Scrofula,	1
Still Born,	1
Teething,	9
Tetanus,	1
Unknown,	13
Ulceration of Stomach,	1
Violence,	1
Whooping Cough,	7
Do and Measles,	1
Worms,	3
Total,	78

JULY.

Aneurism,	2
Anæmia,	1
Casualty,	2
Consumption,	4
Convulsions,	4
Child Bed,	1
Diarrhæa,	17
Dropsy,	5
Dysentery,	3
Debility,	3
Epilepsy,	1
Fever, Continued,	1
Do Scarlet,	11
Do Typhoid,	4
Do Remittent,	1
Do Congestive,	1
Do Brain,	1
Gastritis,	1
Gastro-Enteritis	2
Hydrocephalus,	1
Inflammation of Stomach,	1
Do " Bowels,	2
Intemperance,	2
Laryngitis,	1
Marasmus,	1
Measles,	14

Mesenteric,	1
Old Age,	1
Purpura,	1
Rheumatism,	1
Still Born,	3
Sun Struck,	1
Sudden Death,	1
Teething,	4
Ulceration of Bowels,	1
Unknown,	6
Violence,	1
Whooping Cough,	3

Total, 102

AUGUST.

Consumption,	1
Convulsions,	6
Drowned,	3
Diarrhæa,	4
Dropsy,	1
Dysentery,	1
Disease of Brain,	1
Fever, Scarlet,	5
Do Congestive,	2
Do Typhoid,	1
Do Puerperal,	1
Do Typhus,	1
Do Yellow,	6
Do Bilious,	2
Do Brain,	1
Do Inflammatory,	1
Grief, Excessive,	1
Hæmorrhoidse,	1
Intemperance,	2
Infury by Dog,	1
Measles,	1
Old Age,	1
Purpura,	1
Still Born,	4
Suicide,	1
Teething,	2
Unknown,	12
Whooping Cough,	3

Total, 67

SEPTEMBER.

Anæmia,	1
Consumption,	4
Cholera Morbus,	1
Croup,	1
Casualty,	1
Convulsions,	3
Cholera Infantum,	1
Congestion of Brain,	1
Dysentery,	3
Drowned,	2

Dropsy,.....	2
Fever, Yellow,.....	13
— Scarlet,.....	3
— Pernicious,.....	1
Gastro-Enterite,.....	1
Intemperance,.....	5
Inflammation of Bowels,.....	1
— “ Breast,.....	1
Lock Jaw,.....	2
Laryngitis,.....	1
Old Age,.....	2
Paraplegia,.....	1
Peritonitis,.....	1
Pneumonia,.....	1
Puerperal Convulsions,.....	1
Sudden Death,.....	1
Still Born,.....	6
Tabs Mesenterica,.....	1
Iceration of Stomach,.....	1
Unknown,.....	13
Whooping Cough,.....	1
•.....	—
Total,.....	77

OCTOBER.

Aneurism,.....	1
Apoplexy,.....	1
Consumption,.....	8
Convulsions,.....	1
Congestion of Bowels,.....	1
Colica Pictonum,.....	1
Congestion of Brain,.....	1
Dropsy,.....	2
Dysentery,.....	3
Drowned,.....	1
Fever, Yellow,.....	6
— Bilious,.....	2
— Scarlet,.....	3
— Worm,.....	2
— Brain,.....	1
Gastro Enterite,.....	1
Hæmatemesis,.....	1
Heart, Affection of,.....	1
Intemperance,.....	5
Lock Jaw,.....	4
Laryngitis,.....	1
Old Age,.....	2
Paralysis,.....	2
Pneumonia,.....	2
Quinsy,.....	1
Still Born,.....	3
Tabs Mesenterica,.....	1
Unknown,.....	8
—.....	—
Total,.....	66

NOVEMBER.

Asthma,.....	1
Convulsions,.....	6
Consumption,.....	5
Cholera Morbus,.....	1
Croup,.....	1
Casualty,.....	1
Dysentery,.....	2
Debility,.....	3
Drowned,.....	1
Dropsy,.....	2
Fever, Congestive,.....	1
— Scarlet,.....	12
— Remittent,.....	1
— Brain,.....	1
Gastritis,.....	1
Hydrops Pericardii,.....	1
Heart, Disease of,.....	1
Hæmorrhage of Bowels,.....	1
Inflammation of Brain,.....	2
Mania a Potu,.....	2
Schirrus of Pancreas,.....	1
Still Born,.....	3
Teething,.....	1
Unknown,.....	7
—.....	—
Total,.....	58

DECEMBER.

Croup,.....	1
Convulsions,.....	3
Consumption,.....	7
Congestion of Bowels,.....	1
Cholera, Asiatica,.....	6
— Morbus,.....	3
Drowned,.....	4
Diarrhœa, Chronic,.....	1
Fever, Scarlet,.....	25
— Congestive,.....	1
Heart, Disease of,.....	1
— Dilatation of,.....	1
Hydrothorax,.....	2
Intemperance,.....	2
Intussusceptio,.....	1
Inflammation of Bowels,.....	1
Lock Jaw,.....	1
Meningitis Cerebro-spinal,.....	1
Old Age,.....	3
Pneumonia,.....	4
Suffocation,.....	1
Still Born,.....	3
Teething,.....	1
Unknown,.....	7
Worms,.....	1
—.....	—
Total,.....	82

JANUARY.

Apoplexy,.....	1
Ascites,	3
Cholera, Asiatica,.....	51
— Infantum,.....	1
— Morbus,.....	1
Convulsions,.....	1
Consumption,.....	7
Congestion of Brain,.....	1
Casualty,.....	1
Cachexia Venereal,.....	1
Dysentery,.....	7
Dropsy of Heart,.....	1
Diarrhœa,.....	1
Drowned,.....	1
Epilepsy,.....	1
Fever, Scarlet,.....	13
— Typhoid,.....	1
— Congestive,.....	2
Gastritis,.....	2
Heart, Disease of,.....	1
Hydrothorax,.....	1
Intemperance,.....	2
Inflammation of Bowels,.....	3
“ of Brain,.....	2
Influenza,.....	1
Ileus,.....	1
Lock Jaw,.....	1
Marasmus,.....	1
Mania a Potu,.....	1
Metritis,.....	1
Meningitis Cerebro-spinal,.....	1
Old Age,.....	8
Pneumonia,.....	7
Pleurisy,.....	1
Sudden Death,.....	3
Suicide,.....	2
Still Born,.....	3
Spinal Affection,.....	1

Small Pox,.....	1
Teething,.....	1
Tabes Mesenterica,.....	1
Unknown, ..	18

Total,159

FEBRUARY.

Apoplexy,.....	1
Cholera, Asiatica,.....	19
Casualty,.....	2
Convulsions,.....	1
Colic, Bilious,.....	1
Child Bed,.....	1
Consumption,.....	1
Dysentery,.....	1
Diarrhœa,.....	3
Dropsy,.....	1
Drowned,.....	1
Debility,.....	1
Erysipelas,.....	1
Enteritis,.....	2
Fever, Scarlet,.....	10
— Typhus,.....	1
— Puerperal,.....	1
Frozen,.....	1
Heart, Disease of,.....	1
Inflammation of Brain,.....	3
Lock Jaw,.....	1
Monomania,.....	1
Pneumonia,.....	5
Quinsy,.....	1
Rheumatism,.....	1
Spine, affection of,.....	1
Still Born,.....	3
Sudden Death,.....	1
Teething,.....	3
Unknown,.....	15

Total,.....85

VI.—*Cæsarian Operation.* Performed twice on the same Woman. Child perished in the first; but both mother and child saved in the second operation. Operation by J. A. SCUDDAY, M. D., and reported by J. E. BECK, M. D., of Thibadoux, La., Aug. 17th, 1849.

MR. EDITOR—*Respected Sir:* In justice to Dr. James A. Scudday, of this place, and from the very few times that the Cæsarian operation has been successfully performed, I must ask you to give this a place in your Journal.

May 17th, 1849.—Invited by Dr. Scudday to see, with him, slave Mariah, aged 33 or 35 yearsin, child-bed with her seventh child. The woman has never given birth to a living child. She aborted at an early period of pregnancy with her *four* first children. Went to the full period with her *fifth*, which, however, died before it could be taken from her with the Forceps. She also went her full time with her *sixth* child, and was in labor twelve hours before Dr. Scudday was sent for. The doctor found the contractions of the womb of an expulsive nature, and occurring after regular intervals. But on making a per vaginam examination, he found a bony tumor springing from just below the promontory of the sacrum, and jutting itself directly across the pelvis; thereby, I may say, perfectly blocking the passage of the child's head through the superior strait. The nature of things was immediately communicated to the owner of the woman, and the woman herself, telling them of the impossibility of the birth of the child, and at the same time proposing this operation. Both, after some delay, gave their consent. The doctor, being there without instruments, whetted up an old scalpel found on the place, made other necessary arrangements, and took the child away after the usual mode. The child breathed but a few moments; the mother recovered after a long illness, owing to the intervention of inflammation and suppuration. At this time, May 17th, 3 years from her last confinement, we find her in labor with her seventh child. She is perfectly tranquil, and in every way prepared to undergo the perils of this operation the second time. It is performed by Dr. Scudday, preserving the lives of both mother and child. The tumor, to the touch, is in form conical, certainly two inches in diameter at its base, and there is not more than 1 1-2 inches space between its apex and the sym. pubis. It is now four months since the last operation. I saw both mother and child yesterday; they were very well.

VII.—A Case of *Uterine Phlebitis* brought on by *Vaginitis*, followed by a large Uterine abscess; treated with Iodine successfully by W. P. REESE, M. D., of Lowndes Co., Ala., (June, 23d, 1849.)

Mrs. A.—æ 35; mother of nine children, youngest two years old at the time of the attack; dark hair and eyes; has been the subject of leucorrhœa for many years; 12 years ago, while a resident of Mobile, had simple ulceration of cervix uteri, which lasted *seven months* of one of her pregnancies; by which premature labor was induced.*

She was afterwards relieved, and has borne several healthy children since, notwithstanding the existence of a bad leucorrhœa, and a severe and protracted attack of *phlegmasia alba dolens* after the birth of one of her children. Soon after the birth of the last, her old enemy (leucorrhœa) made its appearance in an aggravated form; this, she treated

* The writer regrets not being able to give the particulars of that attack. Dr. Levert, of Mobile, was her physician.

herself for some time, with only partial relief; had irregularity of menses, missing five, six and seven weeks; which circumstance, with vomiting after meals, &c., induced her to suspect the existence of pregnancy, until the appearance of the courses, which was usually in the form of menorrhagia; in consequence of this state of things, she was much emaciated.

The writer, when called first of February last, found patient with following symptoms: restless; "severe pain through the hips"; inability to turn herself in bed; abdomen swollen; hot to the touch; and patient complained of burning, and heat within; pulse 135, and moderately full; bowels confined; urine scanty and high colored; vaginal discharge less than usual. Treat.—Free cupping along sacral and lumbar regions—bowels to be frequently filled with cold water, rendered soft by adding soda; abdomen and hips enveloped in cloths saturated with cold water, and frequently changed. Nit. Pot. 10 grs, *statim*. rejected; second dose retained after the application of mustard to epigastrium. At the end of three hours found patient quiet, much more comfortable—heat less, but still considerable; cups renewed; same treat. continued. Next day, worse; when it was observed that the inflammation was extending along the course of the external iliacs of both sides, and in a short time, had extended to many of the superficial abdominal veins. Patient cannot bear the slightest pressure over parts affected; cold cloths had been exchanged during the night for hot, and with good effect as long as the weight could be endured.

There was now no mistaking this to be a case of *phlebitis* of three days standing, and as a fatal termination was to be expected, either by suppuration or induration—the entire abdominal surface was well saturated with strong Tr. Iodine. This was used for the two-fold purpose of producing powerful *revulsion* and exciting increased action of the *absorbents*, with the faint hope of thus averting the ordinary termination of cases of this character. Hyd. Potass. was irregularly given, in the mean time. The patient passed three days and nights in very great suffering—without sleep; and with frequent hysterical paroxysms, (G. camphor relieved this symptom,) at the end of which time an abatement of symptoms was noted. The Iodine, (which had been assiduously kept up,) when applied, produced insupportable burning pain, which had not been complained of, until now. Ordered it to be applied to the inside of the thighs, as to the abdomen, three times a day. To produce quiet and sleep the following to be taken: R. G. camph. 3ii, Chloroform f. one drachm, Solve s. 25 or 30 drops every two hours until quiet, and sleep shall have been induced. Second dose was not necessary, as the patient slept soundly for one hour after the first dose. The above was given several times in the course of a week as occasion required, and always with the effect of either producing sleep or relieving hysterical paroxysms. Some of the latter were violent. It was observed that several of the small venous branches had become indurated. The writer had been up to the 7th or 8th day in almost constant attendance, both as nurse and physician. Convalescence was slow, and by the first of *April*, patient was able to make a steam boat trip to Mobile, where she spent two or three weeks, taking a great deal of exercise on

oot. A short time after her return to the country, (her health still bad,) she was again confined to her bed, with *symptoms of procidentia uteri*. The leucorrhœa (which had been greatly relieved) returned—discharges copious, offensive, and very acrid, producing distressing excoriation, which was palliated by external and vaginal washing with Solut. soda, lead and soot tea, &c. Abdomen much swollen; and an examination with the speculum revealed the existence of sub-acute vaginitis; also several* ulcers around the neck; *cervex* enlarged; os dilated, with eversion of its lips; and very sensitive to the touch, and attended with a sense of weight and bearing down pain. *Treatment*.—Cups to the lumbar region; injections of cold flax-seed tear per vaginam, with the hips slightly elevated. At the same time, Iodine was freely applied over the abdominal surface. Shortly after this, she had rigors, alternating with flushes of heat, and this continued for forty-eight hours. The patient, in order to afford some relief to the painful sense of distension, applied firm pressure over the hypogastric region, when an unexpected and sudden discharge of a quantity of pus took place, mixed with lumps and shreds of a dark substance of a fœtid smell, even recognised by the patient herself. To correct this discharge and its fœtor, injections of Lugol's solution of Iodine per vaginam, were freely and frequently employed; also, injections of chloride of soda. This treatment was continued for two or three weeks, and the case gradually convalesced,

At *this* stage of the disease, the patient was ordered wine and porter. About the 23d of June, the patient declared herself perfectly recovered, being able to take, without inconvenience or suffering, much active exercise. The leucorrhœa disappeared, and the menses re-appeared, with the restoration to health.

COLLIZENE, Lowndes Co., Ala., June 23d, 1849.

VIII.—*Cases illustrating the Effects of Spinal Disease upon the entire System, as well as on particular Organs of the Body*—In one case, producing mental derangement; and in the other, symptoms of Bilious Fever. By THOS. E. EVANS, M. D., of Decatur, Miss.

CASE 1.

C. M. ætat, 20 years, full habit; good constitution; sanguine nervous temperament; attacked in June, 1848, with (as supposed) quotidian ague. The treatment pursued at that time, I have no certain means of ascertaining, but suppose, from my acquaintance with the physicians who attended him, was that usually pursued in intermittent fever. Little or no benefit, save a temporary suspension of the attacks, was derived from it. This state of affairs continued until the cerebral functions became so deranged that lunacy supervened, and that to such an extent

* The writer did not count them. (?)

as to induce him to contemplate, in his less irrational moments, the commission of suicide. During the months of September and October, there appeared some amelioration of the more urgent symptoms; at which time the case was presented to my notice, and was characterized as follow: Distinct and violent shivering fits, commencing about 4 p. m., continuing 4 or 5 hours; fever 7 to 8 hours, followed by profuse sweating; tongue thickly coated with white fur, rather redder than natural around the edges; skin pale and shrunken; eyes glassy; without expression in repose, wild when observant; Iris expanded; bowels irregular; appetite voracious; slight headache; sleeplessness; occasional disposition to vomit; constant delirium.

The most striking peculiarity was, that though there was a periodicity in the attacks, yet they could be produced at any time by the least bodily exertion, if the mind was allowed to dwell upon it, and occasionally involuntarily. Business compelled me to be absent from home, so that I saw but little of the case from this time until December, when I found him evidently sinking rapidly, both mentally and physically—in fact, so prostrated, as to be scarcely able to move about, and constantly deranged. He had received medical treatment the whole time, comprising quinine, a mercurial course; liquor arsenicalis Ferri; shower baths daily, &c., &c. The symptoms varied only in intensity from those previously described, and I felt assured that his malady proceeded from some affection of the spinal column, which on examination was verified. The inflammation extended from the eighth dorsal to the third lumbar vertebra, with slight distortion. I had his medicines discontinued, save an alternative purgative to keep his bowels regulated, and applied the following plaster spread on dressed deer skin four inches wide and ten long:

R.—Emplast Hydrargyri,	℥i.
Antim. Tart,	℥ss.
Opii,	℥i.
Pix Burg.	℥ss m. ft. Emp.

Ad vertebræ applicanda.

On the third day, he complained of soreness, pains, &c., &c; his mind became calmer, the chills, fever, &c., ceased, and the whole train of morbid phenomena disappeared, which induced him to remove the plaster, from which imprudence he suffered a relapse and requested another one; this was worn for five or six weeks and he became, and has ever since continued, entirely convalescent, both in mind and body. The irritation kept up by the above plaster is, in my view, far superior to Emplast. Cantharides, Seytons, Issues or any other counter irritant.

CASE 2.

Miss M., aged about 12 years, August 15, 1847, had been sick two weeks, as was supposed by her medical attendant, with bilious fever, and the case, on a *superficial* examination, presented all the symptoms of that disorder. She is this day, (August 15th,) and has been for the two days previous, speechless, yet appears perfectly rational and expresses assent or dissent, correctly, by affirmative or negative signs. On placing my hand upon her right side for the purpose of examining the liver, she

imagined, I suppose, that I was going to turn her in the bed, and showed evident symptoms of uncasiness and fear. My suspicions being aroused, I proceeded gently to turn her, which caused her to scream. I detected inflammation along the dorsal vertebræ, and of the most acute kind. Her debilitated condition and other symptoms forbidding the use of direct depletion, I prescribed the Emplast., as above, which produced on her thin skin considerable irritation in four or five hours.

August 16.—Speech returned; fever broken; the bowels have been opened, and she has rested well.

R—Tinct. Ferri Mum. gtt x. ter die.

17th.—Convalescing rapidly.

18th.—Discharged. Ordered the Emp. to be kept on for two weeks. From considerable experience and close observation, I am convinced that very many of the cases supposed to be bilious fever are actually spinal affections.

*Report of Committee of Librarians
on the Medical Collection of the
City of New Orleans*

*Report of the Committee appointed at the Annual meeting of the Alabama Medical Association, held at Selma, the 8th and 9th of March, 1848, to take an Account of the Diseases which occurred in the City of Montgomery, and Vicinity, in 1848. By S. AMES, M. D., and W. M. BOLING, M. D.**

[illegible]

Part Second.

REVIEWS AND NOTICES OF NEW WORKS.

I.—REPORT ON THE CHOLERA IN PARIS. Published by authority of the French Government. Translated from the original and printed by recommendation of the Board of Health, and the Academy of Medicine of the city of New York, 1849.

The original paper, of which this is a translation, was obtained from the city of Paris, through the system of international exchange, first suggested and brought about by the exertions and perseverance of M. *Alexandre Vattermare*, of France. Of the value of this "Report," we shall now proceed to speak. It is styled, "History of the Cholera in Paris in 1832, prepared by order of the French government."

After glancing at the history of cholera, commencing with it in India in 1817, and following it down to Paris in 1832, the Commission state that "efforts were everywhere made to combat it, and everywhere in vain. It scoffs at the barriers opposed to its progress, (quarantines,) as well as the remedies resorted to against its malignity. It comes without any known cause; it disappears without any revealed reason. The bodies of its victims are in vain examined;—death is interrogated;—death betrays nothing;—it does not bear in its bosom the secret of the plague; it departs, carrying with it the dark mystery, and leaving dreadful gaps in the midst of the population which it has laid waste, and the fear of seeing it again to succeed the fear inspired by its sight."

The above, shows at once the opinion of the Commission, in regard to the cause, nature and propagation of the cholera. It asserts, and we are free to confess with truth, that art is confessedly impotent to discover either the origin, mode of extension, or the cause of the disease. It is an affection which derides the science and power of man; it is a disease of every part, yet does not confine itself to any particular organ of the body. The most robust, as well as the most delicate, fall alike, in a few hours, before its onward march;—neither the innocence of childhood nor the helplessness of age, can bribe this omnivorous monster,—he demands his victims from every class—from the rich no less than the poor,—he halts at the gate of the palace, and stoops to knock at the door of the humble hovel; neither age, sex, color, nor condition, can claim exemption from his tyrannical exactions. But it is useless to relate what is already too well known to the reader.

This report, like every thing emanating from the scientific men of France, contains a thorough and minute history of the cholera, as it prevailed in Paris in 1832. We can only furnish from this valuable report, a few statistical facts for the information of our readers. The first death from cholera in Paris, occurred the 13th of February, 1832, in Lombard street,—the victim was a door-keeper. From this date, the deaths rapidly increased, and on the 9th of April, following, the highest number of deaths are recorded, as being 814. "In short, says the commission, eighteen days after the first appearance of the plague, about 7,000 had perished; for such was the terrible nature of the epidemic, that the earliest symptoms were, but too often, followed by death in a few hours." To meet this exigency, extraordinary efforts were put forth by the Commission. Hospitals were thrown open in convenient portions of the city; ambulances were procured to transport the sick and dying to those charities, and

"Among prisoners, the Prefect of Police caused the distribution of warmer clothing, and more substantial nourishment. The inside walls of the prisons were whitewashed with pure lime, the air of the rooms and of the dormitories purified by continual ventilation; and the furniture and floors of the cells frequently washed with chlorined water.

But the Administration had other cares to observe, other duties to perform, not less important nor less difficult; these related to burials, the delay or neglect of which was forbidden by regard for public salubrity.

It seems at the first glance, that nothing is more easy than to commit a dead body to the earth; but in our present social state, how many cares, how many steps, how many formalities are required to accomplish it! A member of the faculty must certify to the death; witnesses are necessary to authenticate the declaration; clerks to give it legal validity; porters to place the body in its coffin, and the coffin in the hearse, &c. &c. How many things, how many hands, are employed to move him who moves himself no more! And, if in ordinary times, these duties are readily performed, can we believe they will be as easy of fulfilment in the midst of an epidemic, the activity of which surpasses your own, daily accumulating heaps of dead which each morrow beholds increased? Certainly, if there be at such a time a fear, distressing to an Administration, it is that of seeing the means at its command suddenly sink below the exigency that requires their employment. But there was something on this occasion, still more appalling for an Administration fully aware of the urgency of the requisitions, of the gravity of existing circumstances, and of the frightful responsibility that devolved upon it; it was the fatality which seemed to follow and oppose every measure of relief prescribed.

In spite of the zeal and activity shown by the clerks in drawing up the legal certificates, death struck faster than they could write the names of its victims. It was found necessary to increase the number of those useful men, and that of the records of the *Etat Civil*. The law intrusts their surveillance to the Crown Attorney, (*Procureur de Roi*). The Prefect de la Seine had to consult that officer before he could be authorized to open a new book in each *arrondissement*, and these established forms, generally so useful, then caused a delay, the consequences of which it was most terrible to behold."

From the above pathetic extract, we are prepared to estimate the duties which devolved upon, and embarrassed the Administration, in their efforts, if not to stay, at least to mitigate, some of the horrors of that desolating epidemic. We also learn from this, with what system and *espionage*, the authorities superintended and interred the dead; thus

precluding all chance of hasty and ill-timed inhumation. We have not space to follow, *seriatim*, the melancholy history, given by the Commission, of the progress of the cholera in Paris; suffice it to state, every thing that the most enlightened philanthropy, backed by science and the unbounded expenditure of money, could possibly achieve for the sufferers, was accomplished by the Administration, appointed to relieve the ill-fated inhabitants. During the height of the epidemic, when the deaths reached 600 or 700 per diem, the laborers, (about 800 in number,) employed in digging graves, suddenly became panic-stricken, from fear of the contagiousness of the disease, and refused to continue their labor. In vain did the Administration offer to double their wages; they replied, "We prefer life to high wages." Additional forces were pressed into the service, and by establishing a medical station at each of the burial grounds, confidence was restored, and the dead were buried.

Thus things continued, and as already remarked, the epidemic attained its maximum point on the 9th of April, on which day, the deaths were 814; about the latter part of June, the deaths were only ten or fifteen daily; but from this date, the mortality gradually increased, and on the 18th of July, the victims numbered 225. After this date, it began again to decline, and by the last of September, the deaths were from one to ten daily. It was now regarded as extinct, and the public ceased to speak of its existence. The cholera therefore raged in Paris from the 26th of March to the 30th of September, or about 189 days, or 26 weeks. The time it required to reach its maximum point, was 16 days; and the period of its decline was 62 days, says the Commission. In New Orleans, it prevailed from the middle of December until the last of the following July—about seven months, and like that of Paris in 1832, reached its highest point in 16 days, then gradually declined; was again revived, and then slowly declined as above stated. We copy the closing remarks of the Commission on the history proper of the cholera in Paris:

"It spread itself rapidly through the city for 15 days. Arrived at its highest degree of virulence, it remained stationary during 6 other days; then began its period of decrease, which lasted two months.

On the 18th of June, it revived suddenly with fresh vigor; but this recrudescence, already much modified by the constant alternations of increase and diminution, was also marked by different characteristics. The first invasion had employed only 2 weeks or 15 days in reaching its maximum of intensity. The latter took 4 weeks or one month, from the 17th of June to the 18th of July, and that maximum, 226 deaths, fell far short of the first, which had reached as high a number as 814. This second period, compared with the first, differs from it in two respects: longer duration and less virulence."

The number of deaths in Paris for the year 1832, reached 44,119, not including some bodies deposited at the *Morgue*. By deducting from the above sum total, 18,402 deaths caused by cholera, leaves 25,717, died of other diseases. The average annual mortality for the city of Paris, during the 10 years preceding 1832, has been 25,300. The following was the mortality for each month;

First Period. Invasion.	{ In March	90	Deaths. 13,901.
	{ " April	12,733	
	{ " May	812	
2d Period, Recrudescence	{ In June up to 15th	266	4,501.
	{ End of June	602	
	{ In July	2,573	
	{ " August	969	
Total	{ " September	357	18,402.

If we had time we might compare the above with the monthly mortality in the city of New Orleans, during the prevalence of the cholera in this place ; but the reader may, if he feels any interest in the subject, do this at his leisure, as we published all the deaths in our previous numbers and by referring to this source, all the necessary dates may be obtained, for the comparison.

Notwithstanding the extraordinary care and diligence used by the Commission to obtain and preserve a correct account of the deaths in the capitol, from cholera, still the public mind was dissatisfied ; and it was asserted and reported from various sources, that the mortality far surpassed what it had been represented to be by the Commission—that the number of victims reached 40 or 50 thousand, instead of some 18 thousand, and that the report could not be relied upon. The Board of Health of this city has been again and again charged by the ignorant and inconsiderate, with similar dereliction and want of good faith, but in every instance, without just grounds. In answer to the charge above made against the Commission, they reply in the following language, showing the formalities that must necessarily precede the inhumation of a corpse :

"First, it may be answered, that because an event may have happened in such a manner, it does not follow necessarily that it has so happened. The deduction drawn from a supposed fact does not demonstrate its truth ; and it is bad reasoning to begin by advancing, as an established fact, what requires to be first proved ; and besides, are those who thus speak aware of all the formalities that precede the inhumation of a corpse ? It will not, perhaps, be useless to mention them here.

When an individual dies, a declaration of the fact is to be made to the proper authorities of the arrondissement ; a warrant is immediately directed to the physician, appointed for that purpose, to enter the dwelling of the deceased and visit the body, in order to certify the death, and ascertain its cause ; this is a precaution required alike by the moral and physical well-being of society.

This preliminary step having been taken, the officer issues duplicate affidavits of the fact, one copy of which is put on file, and every month the files are sent for examination to the Prefecture of the Department ; the other copy remains at the office of the Alderman of the Ward. It is on the presentation of that document and the attestation of two witnesses, that the *acte-de-décès* (the authentic act of decease) is made out, and that the Mayor issues the warrant of burial to be presented to the keeper of the cemetery where the body is taken. Such are the conditions to be fulfilled before burial is allowed. They are many ; 1st, declaration and attestation of death ; 2d, the warrant of inquest ; 3d, the draft of the civil act ; 4th, the warrant of inhumation.*"

* These conditions are the same for the deceases in the Hospitals ; except that Physicians of those establishments are authorized to certify the cause of the death.

With such stringent regulations in force, it was easy to ascertain the exact list of the dead; and we copied it, not only to give force to the report of the Commission, but also to call the attention of the authorities of all large American towns to an excellent plan of registering the deaths.

Of the 18,402 deaths from cholera, 9,170 were men, and 9,233 women; the proportion between the sexes being nearly equal. It must be remembered, however, that the census of 1831 gave an excess in favor of the females, of 10,640 souls.

The average duration of the disease, prior to death, in four or five thousand cases, carefully ascertained, was about 60 hours; the very old and small children succumbed much earlier than the adult and middle-aged. Without recapitulating a multitude of facts, both curious and instructive, brought before the French Government by the Commission, we shall close our observations, by copying the following "summary," which embraces most of the leading points established by the report:

"The Commission having terminated their investigation, deem it proper to sum up its results.

1. The cholera appeared at one and the same time in Paris and in the rural communes of the Department: or, to be more positive, within an interval of 48 hours, from the 26 to the 28 of March.

2. In the country, as in the city, its development, its progress, its periods of abatement or increase (recrudescence), as well as its duration, have been similar.

3. In the country, as in the city, more women than men died, but in the country the mortality of the females was one fifth greater than that of the males, and comparatively larger than in Paris.

4. In the rural communes, as in the city, the ages that seemed most liable to disease and death, were first infancy, mature age, and senility; the period of human life that suffered least is that between 6 and 20; but in the rural communes, first infancy experienced relatively to other ages a greater loss than in Paris, and adolescence a lesser loss as well as persons advanced in life. Compared to the chances of ordinary mortality, the age between 30 and 40 is that which has presented every where the most unfavorable results.

5. The resistance of nature to the attacks of the disease, has been in a direct ratio to the strength that age offered, excepting, however, the period from 5 to 10 years.

6. It does not appear that the variations of the atmosphere exercised more influence on the activity or relaxation of the evil, in country than in town.

7. The total population of Paris lost

	18,402 persons, or 23.42 out of 1000.			
Of the wards of Saint-Denis	2,001	do.	21.03	do.
Of the wards of Sceaux,	1,385	do.	17.62	do.
<hr/>				
Total in the whole Department,	21,514*	do.	22.75	do.

And if the rural communes suffered less than the capital, the recrudescence in July proved more fatal in them in proportion to the total loss.

The rural communes most exposed to the winds were most assailed, but in

* From the 1st of October, 1832, to the 1st of April, 1833, the number of persons, whose death has been attributed to cholera, was, for Paris 714, and for the country 80; giving 22,308 victims, or 22.57 out of 1000, as the deaths by cholera from the time of its invasion in March, 1832.

Paris the central districts and narrowest and best sheltered streets, suffered most severely. Generally in the localities last mentioned, wherever a poor wretched population was crowded in filthy, contracted lodgings, the epidemic multiplied its victims.

9 In the rural wards, as well as in the capital, the cholera seems to have more specially struck at the professions that indicate least comfort, and above all at those which are exercised in the open air.

10. The excesses in which, too often, the working classes of Paris indulge on Sundays, seem to have produced one-eight of augmentation in the number of admissions to the hospitals on the Mondays following.

11. The mortality was less among prisoners than among other classes of the Parisian population.

12. The loss experienced in the hospices, taken as a whole, presents the same proportion, 64 out of 1000, that is presented by the deaths of the inhabitants of Paris of 60 years and upwards.

13. The military fell before the pestilence, both in Paris as in the rest of the Department, in the proportion of 25.66 out of 1000 ; a proportion which surpasses that of the civic population (21.83).

14. Lastly, in places infected by putrid emanations, the cholera was neither more extended nor more fatal than in other localities."

The concluding portion of the report, corresponds in some respects with the facts as witnessed in this city during the cholera. The remarks under the 10th section, correspond with the experience of the Resident Surgeon of the New Orleans Charity Hospital.—Mr. White, Canal street, has the work for sale.

II SOME REMARKS ON PREMEDICATION *and the doctrine of a retrograde action from collapsion of the absorbent and capillary vessels.* By SAM'L A CARTWRIGHT, M. D. 1849.

In the Sept., 1849, number of this Journal, we took the liberty of reviewing a pamphlet on the Pathology and Treatment of the Cholera, published by the author of the above article. Said pamphlet was widely disseminated through the country ; 'twas declared to be intended for the profession, and as such we deemed it our privilege to notice it. Our review was strictly professional ; the advancement of science was our aim ; the subject was one of much importance—rendered more important, too, on account of the theory having emanated from a source hitherto regarded as orthodox in the South—and we exerted ourself for the destruction of what we humbly considered but " a castle in the air."

Whilst our article was yet in the proofsheets, we received, through the Editor, a request from the author of the pamphlet, that we would allow him to *reply* to our review in the same number of the Journal. This somewhat surprised us, for, apart from its being (so far as we are aware) altogether unprecedented in the history of journalists, it exhibited a familiarity, on the part of the author, with our yet unpublished article, which was quite unaccountable. However, our motives for reviewing were the best ; we were more than willing to give the author

every possible chance to defend himself and his theory, and we acceded to the request.

In due time the number of the Journal appears; the author has availed himself of our liberality; his defence appears under the above title; his proud lance gleams in the rays of science; but where the acknowledgment of the favor received at our hands? We suppose it was only forgotten.

The defence (as we conceive) only involves the author more seriously in the difficulties from which he so manfully struggles, to extricate himself; but there is, at the same time, a "mysteriously captivating" air about the production which is, we think, calculated to do, at least, no good, and we must give the subject our renewed attention.

The author defines Cholera, "a Cholera Morbus of the absorbant tubes of the intestinal canal." In order to explain more clearly the definition, he compares this Cholera Morbus of the tubes with the disease familiarly known in our nosology as "Cholera Morbus;" which latter he defines "a spasmodic, irregular or retrograde action of the alimentary canal." To be more explicit still, the author advocates "the doctrine of a retrograde action from collapshon of the absorbent and capillary vessels of the alimentary canal;" that is, he accounts for the "rice water" discharges of Cholera, by supposing, or rather asserting, that the thoracic duct and its intestinal tributaries return their contents, the chyle, into the alimentary canal through a regurgitative action; instead of the nutritive stream being continued in the direction of the heart, the Choleraic cause gives the order, "to the right about wheel!" and retrogradation is the result.

Two very interesting questions now arise: 1st, What are the data for the conclusions of the author? 2d, Cannot the absurdity of this theory be proven by anatomical demonstration? We are somewhat at a loss how to answer the first of these questions; we have carefully searched both the pamphlet of the author and his subsequent defence, and there appears to us but one single fact on which he can hang his theory. This is, the occasional presence of chyle in the alimentary canal. The extreme frailty of this foundation, however, we cannot better demonstrate than by proceeding to the consideration of question No. 2; which question we undertake to answer affirmatively.

We have elsewhere declared that it is mechanically impossible for this retrograde phenomenon of the author to take place, and it would appear but supererogation to renew this declaration, were it not for the fact that the author, in his defence, clings most pertinaciously to his position, and actually offers authority to sustain him. We have said that the scalpel reveals in the thoracic duct and the chyloferous vessels, as well as in the Lymphatic system generally, the existence of membranous duplications, *valves*, whose important function it is to *prevent* regurgitation of their contents. We have said that anatomy teaches us this immutable fact; and we now bring to our aid the testimony of all modern anatomists—Horner, Neilson, Bell, Morton, Quain, &c., &c., &c. All these authors declare that there are duplications of the lining membrane of the lymphatics, whose principle of action is *valvular*. The thoracic duct is, also, supplied with valves—though not so abundantly as its

branches—and at the point or points of union between this duct and the nervous system are found other valves which seem to prevent the ingress of the venous blood.

Now, the author of the pamphlet and defence contends that regurgitation of the chyle *can* take place; and he brings forward as anatomical authority a certain *Major*, who, says the author, tells us that those so called valves are mere muscular constrictions; which constrictions (according to the author's retrograde theory) become relaxed under the atonic state of the system in cholera, and allow free regurgitation.

What is the meaning of the term *valve*? Webster says: "In *anatomy*, a membranous partition within the cavity of a vessel, which opens to allow the passage of a fluid in one direction, and *shuts to prevent its regurgitation*," (mark the words!). Now the author cites *Major* to prove that these *valves* are mere *sphincters*. If we understand the two terms they are by no means analogous; they are totally different in their signification, and if *valves* do exist at all in the chyloferous ducts, 'tis very certain there are no constrictor muscles, no sphincters.

But think for a moment of such an anatomical arrangement! Think of an all-wise Nature placing a thousand and one *sphincters* along the course of these vessels to *prevent regurgitation*! What is the office of the *sphincters* in other parts of the body? Is it to prevent *regurgitation*? What important function do the valves of the heart perform? What are the valves in the venous system intended for? Why did Nature not substitute *sphincters*, muscular constrictions in their place? It strikes us that farther comment on this point will be considered unnecessary by every reasoning mind. The denial of the existence of *valves*, and the substitution of *sphincters* in the intestinal lymphatics is really a libel on the wisdom of Nature:

But who is *Major*? Is he of the present or of the past? Is he contemporary with Quain, Neilson, Horner, Morton, &c., &c., &c.? Does the author—who breaths nothing but venom against all trans-atlantic men and opinions—offer *Major* as authority in opposition to our own, his own "*home-made*" anatomists? We are sure this was only done in the tortured moment of despair for the life of his pet theory; 'twas the drowning man catching at a straw. Poor *Major*, who, no doubt, would wish that his palpable error should sleep the sleep of death, has been rudely dragged from the quiet shelves of some musty old library, and made to subserve anything but a useful purpose. He is used as a shield against pointed weapons; a shield for the protection of a wild theory even more easily demolished than promulgated. But we will consign him to the peaceful abode whence he was extracted, and "have at" the author himself.

We see no other course for the author to pursue than that of personally resorting to the scalpel; he will not subscribe to modern anatomy, as it is taught to "sophomores;" therefore, let him *demonstrate* the non-existence of valves in the chyle ducts. Such a course only can tend to establish the truth (?) of his theory, and surely the great end most fully warrants the employment of the means. "'Tis never too late to do good;" and if the author will only prove beyond dispute the non-existence of true valves in the intestinal lymphatics, he will then have truly immortalized himself.

Parsons, etc., recommend those desirous of making preparations of the lymphatics to commence the injection at the fingers, toes, lacteals, etc.; otherwise we cannot succeed; for the valves of the vessels *resist* the introduction of fluids. So in the nervous system. Who, if at all conversant with anatomy, ever dreamt of commencing an injection at the cardace extremities of the veins!—All these injections, too, are made under circumstances most favorable to the views of the author; life is extinct, *vital tonicity* is at an end.

But another difficulty arises in regard to this theory. Suppose we grant that “diminished tonicity” does allow of retrogradation; why is it that we do not find the thoracic duct and its tributaries filled with *venous blood*? The author says the “diminished tonicity” and retrograde action are confined to the thoracic duct and intestinal lymphatics. Under such circumstances, then, he will, of course, grant that *all* the valves connected with this portion of the lymphatic system partake of this “diminished tonicity,” and allow regurgitation.—We say, then, that those valves (sometimes one, sometimes several,) found at the union of the thoracic duct and nervous system must, also, become relaxed, and the certain consequence must be a flow of venous blood even into the intestinal canal itself; which phenomenon we have never yet heard of.

“It is only the tubes between the duct and bowels—says the author,—whose action is retrograde.”—Now, here is another of those palpable contradictions so peculiar to his productions; very similar to one we have previously noticed when considering the subject of premedication, (See N. O. Med. and Surg. Journal for Sept., 1849.) In one place the author tells us, “that motion (the retrograde) drains the thoracic duct, and calls the whole lymphatic system into increased activity, to supply it with fluids, which feed it with quarts and gallons instead of ounces; not by retrograde action, but by direct absorption.” And yet on the opposite page he asserts, that “it is *only the tubes between the duct and bowels* whose action is retrograde.”! In other words, the absorbing powers of the general lymphatic system are excited in an unusual degree, the intestinal lymphatics assume a retrograde action, and the *thoracic duct* remains *undisturbed*. Does not the author demolish his own fanciful theory?—But is it not presumption, for any man, senior or junior, to assert that one part of the lymphatic system labors under this strange perversion of its function, whilst another suffers an augmentation of its natural action? What right, we ask, has any man to assume such a position, when he himself acknowledges the existence of a “collapse of the capillaries of the skin and mucous membrane,” and a consequent efflux of the fluids of the body? Cannot this very efflux account sufficiently for the death of the patient, without torturing the imagination with an *ad captandum* theory, which is founded on assertions, is built of assertions, and gaudily embellished with innuendoes?

But, says the author, “collapse of the capillaries of the skin and mucous membranes, and their retrograde action, arising therefrom, are only effects of the progress of the disease, not causes.” Another assertion, and for aught we know, a very philosophical one: yet, we must confess it is too deep for our comprehension. How does the author *know* that one is cause and the other effect? Will he be kind enough to

favor us with a little *reasoning*, on these interesting points? We are really tired of finding such assertions; they will defy the strongest digestive powers. Suppose we were to present the author a case of malignant cholera, bathed in perspiration, no vomiting, no purging; after death we find no rice water in the intestines. (many such cases have been seen); would he still tell us that the "dripping moisture on the skin" is the *effect of a retrograde action of the intestinal lymphatics*? Suppose we present him a body dead of cholera, during the life of which patient there had been neither vomiting, purging, nor sweating (a case of "cholera sieca"), will he dare tell us that this man died from a retrograde action of the intestinal lymphatics? Unless such cases do come under his theory, (and t' would require a resort to smuggling,) we argue that it is worse than worthless. The theory cannot even stand on the general principle of short-sighted philosophers—*post hoc, ergo propter hoc*; for we often find cholera patients purging and vomiting, without perspiration; we find them perspiring most freely, without purging or vomiting; and we find them dying, without vomiting, purging or sweating.

We cull from the defence of the author, an attempt to establish the retrograde theory by a very cursory process of reasoning; the only effort of the kind, we have been able to detect. He says, "But the question arises, what were the valves intended for, if not to guard against retrograde action (he *admits*, then, their existence)? The doctrine, therefore, of retrograde action is proved by nature herself, in furnishing absorbents with valves to guard against it, otherwise the valves would have been useless."

We have pondered over this strange emanation with a hearty desire to comprehend its meaning, and we can only express our appreciation of it, by offering a few items, which we consider quite parallel in the way of ratiocination.

Nature has so ordained it, that the Mississippi river, in order to subserve the most useful purposes, assumes a serpentine course in its way to the Gulf of Mexico; *ergo*, the "father of waters" must one day break through all barriers, and, sweeping along in a straight line, leave scarcely a trace of his own quondam grandeur.—Or, nature having so arranged it, that the gradual descent from North to South is the means of securing the exit of the waters of the Mississippi into the Gulf of Mexico; *ergo*, the waters of the Mississippi will one day assume a "regurgitative" action, and the river will actually *run up stream*. Or, an artificial hydraulic machine being supplied with valves, in order to guard against regurgitation of the contained water; *ergo*, regurgitation, the end to be avoided, must necessarily take place; "otherwise the valves would have been useless." The use of nothing vital or mechanical can be understood or determined, unless an equal degree of worthlessness can be attached to it. Be a man or a thing of ever so much value to the world, he or it is, nevertheless, in an equal degree detrimental. And thus might we continue in this utopian strain of philosophy, until we could almost fancy ourself entitled to "the seat by the side of" Bacon himself.

Again, in the reply, (or rather defence,) we find the following remark

—"This morbid or retrograde action may seize on a greater or less number of the absorbent tubes at the same time, causing the disease to be more or less mild or severe in proportion to the number indicated in the first instance."

Certainly this is a closer approximation to perfection in diagnosis than we have ever before heard of. The diagnosis of cardiac and pulmonary affections, through the invaluable means of auscultation and percussion, is completely thrown into the shade, where a man can, by looking at the discharges, etc., of a cholera patient, tell how many of the innumerable intestinal lymphatics are involved in the disease. The only reason we have for not at once seeking an initiation into the wonderful medium through which such diagnosis is determined, is that man is altogether skeptical in relation to the retrograde theory.

Again, the author endeavors to establish his theory on a supposed so-called "antagonistic relation," said to exist between the skin and mucous membrane in a state of health! 'Tis on this foundation, he builds his assertion: the patient cannot purge and sweat at the same time." Now, we are fully aware that the author is not isolated on this point (the "antagonistic relation"); we have known the idea expressed before: yet we consider it altogether erroneous, and will endeavor to demonstrate the fact.

We argue that there is no such thing as an "antagonistic relation" between the skin and mucous membrane in a state of health. Take a man whose functions are all undisturbed; there is an insensible perspiration on the skin, and the intestinal mucous membrane is performing its proper functions of secretion and absorption; the membrane is (in the language of Andral) *perspiring*. What is there in such an individual to induce the inference that an "antagonistic relation" exists between these surfaces. Here, both surfaces are performing their functions naturally; a *simultaneous* secretion is going on in the state of health; and yet we are told that an "antagonistic relation" exists between them. If we understand the meaning of the term, the existence of this relation would lead us to infer the impossibility of a simultaneous secretion. Webster defines antagonistic, "*contending against*"; and we are necessarily lead to suppose that the skin and mucous membrane are ever "*contending against*" each other in a state of health. But this is rather too much for our credulity, to say nothing of self-evident facts most fully demonstrative of our position. We have too much confidence in the *philosophia naturæ* ever to believe that these important functions are "antagonistic," are continually *warring* against each other in a state of health. Possibly, however, we may be able to account for this error too often subscribed to. We sometimes find that external causes, as cold, will *check* the insensible, the normal perspiration, and this phenomenon will be followed by more or less severe diarrhœa; thus exhibiting *supplementary* relations in the *anormal* state. But a diarrhœa is not always consequent on a sudden cessation of the normal perspiration; the kidneys may often assume this supplementary duty, and increased flow of urine is the result. The common observation amongst all persons, professional or not, is that micturition is always more profuse in the winter season; and 'tis accounted for by the fact, that we perspire

much less at this time. But we do not know that *diarrhœa* is more common in winter; according to our own observation the spring, the approach to warm weather seems most productive of this affection. The supplementary relation between the skin and kidneys, then, is much stronger; if any "antagonistic relation" exists at all, let's locate it here.

But this is not an "antagonistic relation"; 'tis only a supplementary sympathy (if I may be allowed the expression) between the organs, and only demonstrated by the operation of some external cause, which at once makes a greater or less impression on the *health*, the normal condition of the man.

Again, this same cause (cold,) by checking the perspiration, often develops other phenomena, which amount to disease in man. Pleuritis, pneumonia, coryza, rheumatism, &c., come under this category; the *serous* membranes take on this supplementary action; but are we, therefore, to infer the existence of an "antagonistic relation" between the pleura, pericardium, pulmonary parenchyma, &c., and the skin?

The author's assertion, then, that "the patient cannot purge and sweat at the same time," amounts to nothing. As we before said, nothing is more common than to see cholera patients purging and sweating simultaneously, and at the very commencement of the disease, prior to the failure of the pulse, and whilst the skin is warm and scarcely at all changed in appearance.

But the author will say, this is not *natural* perspiration, you observe in these cases. If not, will he be good enough to favor us with a definition? Merely to assert that a thing is, or is not so, is but exhibiting a culpable contempt for reason, which is ever detractory to science.

"All the watery or serous part of the blood (says the author,) in the cellular and every other tissue, having been absorbed by the lymphatics, and conveyed into the thoracic duct, and thrown out of that duct into the bowels, interstitial absorption takes place to supply the lymphatics with fluids. The muscles undergo molecular transformation, to feed the hungry lymphatics. The muscular absorption explains the rapid prostration and shrinking and loss of flesh so characteristic of cholera."*

A patient is seized with cholera, vomiting, purging and cramps; in three hours from the moment of attack he is dead; the *shriveled* body lies before us. We are told that the shrunken appearance of this cadaver is the result of "interstitial absorption," destruction of the *muscular tissue proper*. Is there the slightest probability of such a state of affairs? Granting the lymphatics this power of absorption, is

* M. Mialhe has recently promulgated similar views, although not in the same words. It is, however, not remarkable that two philosophical minds should arrive at the same conclusion, in seeking to explain the same phenomena. We reproduce the language of the French philosopher: The albuminose (called the serous part of the blood by the author,) thus formed, instead of ministering to the nutrition of the patient *** is immediately driven out of the system, both by the gastro-intestinal mucous membrane and the skin. *** The first albuminose secreted is furnished by the whole mass of the blood, and the muscles undergo their molecular transformation only secondarily!

"This muscular absorption explains very satisfactorily the rapid phenomena of prostration and loss of flesh so remarkable in cholera patients."—(Ed.) Vid: London Lancet, June 1849, page 477.

it possible that they could, in so short a space of time, have appropriated to themselves the muscular fibre, the "cell wall," the fibrous tissue containing the fluids of the body? On the other hand, cannot the emaciation be accounted for by the simple detraction of the fluids, without supposing impossibilities, the better to support another false idea which we shall presently notice? When a man dips his hand into cold water, and it afterwards presents a *shrunk* appearance, shall we refer the phenomenon to 'interstitial absorption,' molecular transformation; or shall we more reasonably conclude that it is the result of a recession of the blood?

But the author misunderstands the functions of the lymphatic system altogether, when he avows their power of "interstitial absorption." Mr. Carpenter says: "Since the time of Hunter, who first brought prominently forward the doctrine alluded to, it has been commonly supposed that the functions of the lymphatics is to remove, by interstitial absorption, the effete matter, which is destined to be carried out of the system; and any undue activity in this process (such as exists in ulceration), or any deficiency in its energy (such as gives rise to dropsical effusions, and other collections of the same kind), have been attributed to excess or diminution in the normal operation of the absorbent system. From what has been stated, however, it appears that the special function of the lymphatics, like that of the lactals, is *nutritive* absorption" (see Carpenter's Human Physiology, p. 352).

Again, Prof. Moultrie, of Charleston, S. C., assumes the ground that the lymphatics are solely *nutritive* in their functions. He says that it is the office of the venous system to remove all effete matter from the economy, to remove from the body all matter which is the result of disintegration. He says, "Nature, in effecting the elimination of excrementitious matter from the constituency of the solid, or fluid parts, appears to aim at restoring to the physical universe, the matter temporarily borrowed for subsistence, in a state of elementary simplicity, or an approximation thereto; that is, the carbon as carbon, the azote as azote, and hydrogen and oxygen as hydrogen and oxygen. The lungs are used as one medium of escape; the kidneys as a second; and the skin as a third, &c. Hence, the carbonic acid gas of respiration; the urea of the kidneys, and the aqueous exhalations of the skin, pulmonary transpiration and urine."

Now, here is something emanating from a philosophical mind. Dr. Moultrie not only promulgates a theory, but he, at the same time, throws up a breastwork of reasoning around it, which proudly dares the attack of the enemy. Why should we, why should the author assume that the lymphatics pray on the muscular system in cholera? He gives us *reason*. On the other hand, do we not find in the venous blood, in a state of health, enough to induce the inference, that to this system belongs the office of cleansing the economy?

But (says the author), "the metamorphosis of muscles, from interstitial absorption, yields the albuminose which has been found in the white fluid in the intestines of cholera patients. Hence the discrepancy in the analysis of the cholera discharges is readily accounted for, as it must vary with the stage of the disease. *The albuminose can only be yielded by actual muscular absorption*" (unitalicise).

Here, then, is the secret of the author's theory of interstitial absorption of the muscles. He wishes to account for the presence of albumen in the rice water discharges, and to this theory he resorts for an explanation. The author has, in his defence, made frequent sly allusions to our ignorance, but 'tis our humble opinion that the charge now rebounds against him with full force. Did he not know that both the chyle and lymph contain albumen sufficient to account for the presence of this substance in the discharges? According, too, to the analyses of Dr. G. O. Rees, the chyle contains nearly three times as much albumen as the lymph; so that the greater the duration of the disease, the less the quantity of albumen in the discharges; thus giving the *coup de grace* to the interstitial absorption theory of the author.

The author, in his defence, introduces Mr. Marshal Hall and his "reflex theory;" he accuses us of being a "Hallite," and accounts for our skepticism in relation to the "retrograde theory," by asserting our faith in the discovery of Hall. Now, we are completely at a loss to ascertain what possible connection there exists between one *mechanical* objection to the regurgitative theory and Mr. Hall's discovery. Surely, he would deserve a premium who could detect the slightest relation. He says that the theory of Hall has "exploded." That a match had been applied to the material, we were well aware; but we have never yet heard the *explosion*; so far from being *explosive*, we very much doubt whether the material is even *combustible*.

But in all this the author quite forcibly reminds us of the cuttle fish, whose natural history teaches, that when closely pursued by an enemy, it avails itself of an inherent power—that of rendering turbid the surrounding water, in order to effect its escape.

A few words more, and we have done with the "retrograde theory." After all our trouble in endeavoring to expose the falsity of this phantom, shall we say that we cannot even award the theory the merit of *originality*? 'Tis too true! 'Tis a painful duty we have to perform, that of intruding ourselves into the domestic relations between father and son. But, *suum cuique*. This child of the author is but an adopted one, and the world must know it.

On the 3d of May, 1849, a letter on cholera, by a Dr. Goodlet of Tennessee, was published in the National Intelligencer at Washington City. This letter contains the "retrograde theory" of the author in full, and the author declares, too, that he published his theory in both pamphlet and book form in 1833. In a letter addressed by Mr. Rankin, Assistant Surgeon to the Calcutta General Hospital, to the Medical Board of Bengal, we find the identical theory. And in the number of the N. O. Med. and Surg. Journal for Jan., 1849, we find the same theory promulgated by Dr. Bennett Dowler of New Orleans.

Now, 'tis not at all improbable that the author may have overlooked the published theses of Drs. Rankin and Dowler; but that he should never have met with Dr. Goodlet's theory, is something very strange, when we recollect that this gentleman appeared before the public, in both pamphlet and newspaper form—the chosen medium of the author for the dissemination of medical knowledge. But we suppose 'tis one of those wonderful coincidences, so common in these days of improve-

ment. Suffice it to say, we deem the theory of Messrs. Goodlet, Cartwright, etc., *retrograde* in the fullest sense of the word.

In relation to the subject of *premedication*, we have but little to add to our previous remarks on the subject. This little, however, throws much weight into our scale, and we, therefore, give it to the reader.

We learn from Dr. Lein. Gustine of this city, by personal communication, that he has *never tested* the virtues of premedication. The nearest approximation to testing the plan, is his faith (only theory), in an exceedingly mild mercurial corrective, and his recommendation of *this* course to a planter of the Mississippi river, who had never an opportunity of trying the experiment.

Again, we have the following weighty evidence in our favor: On the 27th of May, 1849, Dr. Kithridge of Lafourche, La., (a retired practitioner, and sugar-planter,) wrote a letter to Dr. E. D. Fenner of this city informing him of having tried the plan of premedication amongst his negroes, and expressing great faith in the practice. But it seems that this gentleman was premature, he was deceived; for on the 22d of July, Dr. Fenner received a second letter from him, in which he expresses quite a different opinion. After giving an account of the failure of the preventive course, he concludes by saying—"So it is clear, that no course of medical preventive treatment will secure the patients much longer than while under the influence of the alterative remedies used."

NEW OLEANS, Sept. 20th, 1849.

D. W. B.

III. PARTURITION *and the Principles and Practice of Obstetrics.* By W. TYLER SMITH, M. D., *Lond., Lecturer on Obstetrics in the Hunterian School of Medicine*: Phil., LEA & BLANCHARD: 1849.

This book claims to be something more than a mere recapitulation of the opinions of writers on Obstetrics; it aspires to the high distinction of having explained the mechanism of labor upon the principle of Hall's reflex system, and thereby made important additions to reflex physiology. In the present number we shall not attempt to examine into the merits of the author's claims; we wish simply to call attention to the fact, and present some of the data upon which the author bases his book. We must congratulate Dr. Smith upon the boldness of his conceptions, and commend his work to all *thinking* readers on obstetrics, as full of useful hints and practical observations. To give the reader some idea of the author's peculiar views and mode of expressing himself, we extract the following remarks on "*Reflex uterine action*:"

"The reflex actions of the uterus are very numerous, and it is upon these, and the numerous extra-uterine reflex actions excited during the process, that the natural performance of parturition essentially depends. Contraction of the uterus, from irritation of the mammæ, as in the act of suckling the child; contrac-

tion of this organ from the cold water douche, applied to the vulva or the abdominal surface; contraction excited by irritating the rectum, as by stimulating enemata; or of the stomach, by drinking a gulp of cold water; of the ovaria, by the presence of the menstrual nîsus; of the vagina, by manual irritation, as in "taking a pain;" of the os uteri by irritation, as the introduction of the hand into the uterus—are all to be considered as so many instances of reflex spinal action. Thus, in parturition, the uterus may be excited, in a reflex form, by irritation of the mammary incident excitator nerves; the pubic and abdominal branches of the intercostals; the rectal; the gastric division of the pneumogastric; the ovarian nerves; also by the nerves of the vagina, and the os and cervix uteri.

Many of the different forms of abortion—particularly when the causes are extra-uterine—strikingly illustrate the reflex action of the uterus. A series of cases of abortion would be one of the best expositions of reflex uterine action. Abortion may be caused by irritation of the mammæ, from the sucking of an infant, after milk has ceased to be secreted, as in cases in which the mother becomes pregnant during lactation; abortion may be excited, as a morbid reflex act, from irritation of the bladder, by a calculus; by irritation of the trifacial nerve, as in cutting the dens sapientiæ; by the mechanical irritation of coitus; by plugging the vagina; by disease of the os and cervix uteri—malignant or simple induration, inflammation and ulceration; by the irritation of the placenta attached within the uterine mouth: by ovarian irritation in ovarian disease; by irritation of the rectum, as from ascarides, and the use of irritating purgatives or enemata; by puncturing the membranes, and evacuating the liquor amnii, so as to bring the head of the fœtus to act as an excitant to the os uteri; by irritation of the inner surface of the uterus itself, in cases of blighted fœtus, where the ovum acts as a foreign body; by riding on horseback, or any other violent exercise calculated, by succussion, to bring the head of the fœtus into violent contact with the os uteri; and by other sources of irritation to incident spinal nerves which might be enumerated. All these are so many instances of uterine reflex action, the distant parts of the economy being brought into connection with the uterus through the medium of the spinal marrow and its special incident excitator and reflex motor nerves. These facts are of most extensive practical application in devising means for the prevention of abortion."

Our author then proceeds to point out other reflex actions, though extra-uterine in their location, but which 'combine and harmonize with the reflex action proper to the uterus.' At the full period of utero gestation, Dr. Smith advises us to study the reflex actions of the uterus in combination with the reflex actions of the respiratory muscles, as excited by parturition. It is through this means or channel that the muscles of the thorax aid in the expulsion of the fœtus.

Again, says the author:

"In natural labor, after the process has fairly commenced, it is the ovum which furnishes the chief stimulus to the incident excitator nerves, in the transit through the different portions of the parturient canal. Besides the mere enumeration of the various spinal excitors, by the irritation of which the uterus may be affected physiologically or pathologically, we shall have to study the order and succession of the normal reflex actions, uterine and extra-uterine, occurring in labor. Parturition is not one reflex act, but a function, the combined result of many such actions, aided by other powers; and we must study the preliminary phenomena, the different stages of the process, and the final accomplishment of the function; when we shall find that Nature has at her disposal a wonderful succession of stimulus and action, exactly adapted to the dilatation of the os uteri and the vagina; the propulsion and expulsion of the fœtus; and providing, also, for the safe contraction of the uterus, and its return to the unimpregnated state,

The uterus, as a motor organ, stands alone in many respects: unlike the rectum and bladder, it is not directly influenced by volition; and unlike the heart, it is extremely prone to reflex action; it more nearly resembles the œsophagus, which is uninfluenced by the will, but is endowed with reflex motor and peristaltic action. It, however, differs from the œsophagus in the great number of excitor surfaces with which the spinal system places it in relation; neither is there any other organ—not even the stomach—which acts as a spinal excitor to so great a number of organs as the uterus and its excitor nerves, whether we consider it in the impregnated or the unimpregnated states. Hence the physiological necessity for the abundance of nerves recently discovered.”

The foregoing extract proves conclusively the tendency of Dr. Smith's mind to make innovations, or rather, new applications of the received doctrines to the explanation of natural phenomena. What will be the reader's astonishment when he shall learn from this number of the Journal that our distinguished correspondent, Dr. B. Dowler, has made some recent experiments, by which the reflex system of “Hall” has been overthrown—utterly demolished, and must henceforth go begging for followers and converts. We refer the reader to Dr. D's experiments in the first part of the Journal; they are as interesting as they are curious and instructive.

In conclusion, we must state, that Dr. Smith's views of parturition, as promulgated in these lectures, will be hailed by the reflecting portion of the profession, as establishing a new epoch in the obstetrical art. Much has been recently written on this branch of medicine, but it has been but the echo of the same opinions—of the same doctrines—of the same principles, long since familiar to the medical public. It is for this reason, that we demand something new—something bold and original, if not in design, at least, in the application of well established theories to the exposition of hitherto unexplained phenomena. The work of Dr. Smith belongs to this latter class and will, on this account, command attention. It is for sale at White's book-store, 53 Canal street.

IV.—*The Maternal Management of Children, in health and Disease.* By THOMAS BULL, M. D., Member of the Royal College of Physicians, Author, &c. From the third London edition. Philadelphia, Lindsay and Blakiston, 1849.

The book opens with the following startling announcement: “*One child in five dies within a year after birth, and one in three before the completion of the fifth year.*” The above is said to be the average mortality among children for the whole of England and Wales, and we think it hardly much less in other parts of the world; we doubt, however, whether it reaches the above high ratio in this country. It is to be regretted that our statistical knowledge on this question is so meagre and limited. In all large cities, the mortality among children is fright-

ful, and this must continue until more perfect and stringent hygienic regulations are put in force by those in authority. It may be asked, to what shall we attribute the great mortality among children, in almost every great city? To answer this question, we should be compelled to give too much scope to our pen, for the limits of this notice. We think, however, that food, either bad in quality—defective or irregularly taken, contributes greatly to swell the bills of mortality among children. This results either from poverty on the part of parents, or ignorance and carelessness, or both, on the part of those who have charge of the nurture and education of children.

The females of this country become mothers so early in life that they are wholly incompetent to assume the responsible duties incumbent upon such a situation. Hence their first-born, if not endowed with a vigorous constitution, early fall victims to the mother's carelessness or incompetence. This evil must be deplored, but can not be remedied; it grows out of the nature of our institutions, and will be perpetuated until these institutions are either changed or re-modelled. As Dr. Bull's work is more particularly addressed to mothers, we shall not enter into any details upon the merits of the book, but content ourselves with recommending it in the most emphatic terms, to those who may be called upon, in the allotments of life, to nourish, nurse and rear the rising generation. It will be the best guide the young and anxious mother can possibly obtain, under trying circumstances. Mr. White, Canal street, has the work for sale.



V.—*Valedictory Address before the Class of the Medical College of Ohio, Session 1848—9.* By L. M. LAWSON, M. D., Professor of Materia Medica, etc. (Published by the Class.) Cincinnati, Ohio, 1849.

We are much pleased both with the style and sentiments of this address; the first is easy, graceful, flowing and uninterrupted; the second, manly, elevated and inspiring. We read it with no ordinary satisfaction, and although the author does not claim to advance any thing new or startling,—he has done more than this,—he has invested an old, a hacknied theme—"advice to graduates," with new interest, and given good advice to the ambitious candidate for professional honors and emoluments. If Professor Lawson's class does not profit by his advice, the fault is not with him; he has discharged his duty—set before them examples, bright and shining, worthy of their emulation and imitation. We hope they will take heed and catch a part of that zeal and enthusiasm for the advancement of medical science, with which the Lecturer's breast was certainly inspired in delivering this address.

VI.—TRANSYLVANIA MEDICAL JOURNAL, edited by E. L. DUDLEY, M. D., Professor of General and Pathological Anatomy and Physiology; under the supervision of the Transylvania Faculty of Medicine. Vol. 1 July, 1849—No. 1. Bi-monthly, three dollars per annum, payable in advance, Lexington, Ky., pp. 96.

IN every part of our widely extended country, Medical Science is advancing with unprecedented speed. This is evinced by the publication of a number of valuable medical Journals, and the large amount of sound *original* matter contained in a large portion of them. The *American* physician is eminently practical in all that relates to his profession, and the question "*cui bono*" constantly recurs to his mind. To cure disease, *tuto, cito, et jucunde*, is his ultimate aim—his highest ambition, and neither the charms of novelty, nor the transcendentalism of certain medical philosophers, can abate his ardor or quench his zeal in the pursuit of valuable and useful practical knowledge.

The appearance of the new Journal at the head of this notice, replete with practical information, leads us to make these observations.

This, the first number, contains the following original articles, besides reviews, editorials, &c: Professor B. W. Dudley on the "*treatment of aneurism*," of 15 pages; Professor S. Annan, on "*Dysmenorrhœa*" of 10 pages; Dr. S. B. Allen, on "*Insanity—its nature and treatment*," of 6 pages; Dr. J. C. Harris, on "*Periodical or malarious fevers*" in the U. S., of 18 pages. The reputation of Prof. Dudley, as a practical surgeon, and the high standing as writers, of some of his colleagues, all of whom will contribute to the pages of the Journal, will give character and popularity to the "*Transylvania Medical Journal*." The editor has omitted either to number the articles, or to furnish a table of contents for this number. Let him look to this slight defect and correct it. We wish the Journal success.

VII.—*A Practical Treatise on Asiatic Cholera.* By THOMPSON MCGOWN, M. D., Philadelphia, 1849.

THIS is a pamphlet of about 30 pages, printed in large type, and aims to point out the correct nature of the disease, and its rational mode of treatment. The author informs the reader that it is "*issued in pamphlet form, and taken from a new medical work, now being published on the diseases of the South*." If this is a fair specimen of the forthcoming work on Southern diseases, the author would spare his reputation, by consigning to the inexorable flames, the manuscript, ere it sees the light. The pamphlet does not contain a single important idea on the nature of cholera, or its treatment, that is not already familiar to an intelligent public. Our patience is quite exhausted with such catch-penny productions put forth "*for the benefit of the public*." The

work, it is true, has some merit, and is written in a plain, intelligible style, but do these pretensions justify such as may be ambitious for a little notoriety, in publishing to the world facts and observations, long known to the members of the profession?

VIII.—*Lectures on the Diseases of Infancy and Childhood.* By CHARLES WEST, M. D., Fellow of the Royal College of Physicians, etc. Philadelphia, Lea and Blanchard, 1850. p. p. 451.

These Lectures were originally, we believe, published in the *London Medical Gazette*, but have been republished in a neatly bound volume—Dr. West is high authority on the diseases of childhood, and these lectures will be well received by the profession.—The enterprising publishers have dated the work 1850, but for what reason, we know not, perhaps to signalize their energy and prosperity.

We shall give an extended notice of the work in our January No. The book is for sale in this city.

Part Third.

EXCERPTA.

[From the Dublin Quarterly Journal of Medical Science.]

- 1.—*On Cervical Abscesses, the Accidents which sometimes attend their Treatment in reference to Hemorrhage;—And a new Operation for securing the common Carotid Artery.* By WILLIAM HARGRAVE, M. B., Professor of Surgery in the Royal College of Surgeons in Ireland, and Surgeon to the City of Dublin Hospital, 1849.

On examining the surgical anatomy of the neck we are forcibly impressed with the importance of this region in a practical consideration of the great liability there is of hemorrhage occurring as a sequence to many of the diseases which have their locality in this situation. This liability proceeds not alone from the arteries and veins of the second and third class, but also from the more minute vessels which traverse this region in such numbers in almost every direction, and which are liable to be opened directly by the surgeon, when operating, or sometimes indirectly by ulcerative absorption.

Ulceration is a very frequent cause of hemorrhage in the neck, and arises from such accidents as burns and scalds, from the injudicious application of vesicatories, or from vessels communicating by this process with the cavities of abscesses, either before or after being opened; showing itself, in the first case, immediately on the abscess being opened; in the second, not declaring itself till some days after the contents of it have been evacuated.

In consequence of the improved spirit which now actuates practitioners, of more readily giving to the profession the results of their experience, whether successful or otherwise, we are in possession of some valuable pathological facts bearing on the question of hemorrhage occurring in the neck, and also in the mouth and fauces from tonsillitic affections, owing either to ulceration taking place in the vessels, or from what may be termed secondary ulceration after an abscess has been opened.

Before entering into the details of the following case of hemorrhage from an abscess in the neck, and the practice demanded by it, I shall recapitulate the results of the recorded practice in reference to this occurrence.

Three cases of death following in a very short period from one or other of these causes have been published:

I. An abscess formed on the right side of the neck in a young child; a peculiar thrill and tremor was observed in it; after much deliberation it was punctured, pus mixed with blood flowed from it, then pure blood; the orifice was closed: the child died that evening. The post mortem examination exhibited a cribriform communication on between the abscess and the external jugular vein.*

II. A remarkable case occurred in the practice of the late Mr. Liston, who punctured an abscess on the right side of the neck, with which the common carotid artery had communicated. The vessel was secured low down in the neck. The patient dying of arterial hemorrhage on the fifteenth day, the artery was found to have opened into the abscess. In the paper detailing these circumstances, Mr. Liston mentions three instances of communications between large arteries and abscesses. Three other examples of arterial openings in cavities of this description have been recorded by Mr. Partridge.*

III. An abscess formed spontaneously in the neck five months before death, a white purulent discharge from a fistulous opening in the supra-sternal fossa remained, from which arterial hemorrhage occurred; it was arrested by compression, but returned on this means being discontinued. The patient sunk in forty-eight hours from the first invasion of the bleeding. The post mortem examination exhibited an old abscess of a large size, occupying the front of the neck below the larynx, and extending behind the sternum to the right of the arch of the aorta; also a right lateral extension between the right bronchus and arteria innominata to the spine, which, however, was not diseased. The external cellular coat of the aorta and arteria innominata was removed, the fibrous one to some extent; in the centre of it a lacerated opening, about a quarter of an inch long, was found, which penetrated the lining membrane.†

When abscesses form in the tonsils I have witnessed most alarming hemorrhage follow their opening, even when performed with every care, but in no instance has death occurred. In examining the vascular relations of these glands to explain such an occurrence, they present us with three varieties, two of which will afford such hemorrhage as may or may not be fatal; the third, I presume, will always prove so. Under the first head we find the tonsillitic arterial circle, which, if wounded in opening the abscess, will often give an active flow of blood. The next source from which we should be prepared for a serious loss of blood is the inferior or ascending pharyngeal artery, which creeps to the base of the cranium, close to and external to the tonsil. I feel satisfied that, in one case of very alarming hemorrhage which I witnessed, it came from this vessel. Under the third head the bleeding is from the internal carotid, a wound of which must be almost instantaneously fatal.

From oral communications with some of my medical friends, other instances have come to my knowledge, not alone of excessive and often returning hemorrhage in the same patient, but in which a fatal termination has followed the opening of purulent collections, the sequelæ to scarlatina.

So critical and serious are these consequences in practice as to demand every circumspection and examination before abscesses in this region are punctured, but also active subsequent watching in order to detect the first symptom of bleeding, whether of the more evident or of the doubtful kind. We should, therefore, be prepared to meet and ward off this unpleasant, if not fatal occurrence, in cases that otherwise promise a most satisfactory termination. From an attentive examination of the abscesses which have been complicated with active losses of blood, I find that the majority of them were in subjects of a more or less cachectic habit, suffering from struma, or bad forms of scarlatina, perhaps also of a cancerous diathesis.

Analogous communications are occasionally presented to us, in the thoracic cavity, of arteries opening into ulcerated excavations, often causing sudden death; the accident showing in strong contrast the practice of surgery compared with that of medicine. In the former, by its remedial means, if life cannot be preserved, still some extension will be afforded to it; while, in the latter, we are compelled to look on with the calmness of despair, bereft of all hope, incapable of affording any assistance.

* *Lancet*, vol. i., p. 864, 1841-2.

† *Lancet*, July 11, 1846, p. 44.

On Ligature of the Subclavian Artery.—By DR. W. HARGRAVE, Surgeon to the City of Dublin Hospital, &c.

(Hargrave thinks that the chief cause of failure in the operation of securing the subclavian, internal to the scaleni muscles, is that the artery cannot be placed in a relaxed position after the operation. He proposes to remedy this evil by *sawing through the clavicle*. Cruveilhier and others have advocated this manoeuvre as a means of facilitating the exposure of the vessel; but Dr. Hargrave recommends it with a different object. He says:)

It is this step in the operation which I would propose, not so much for the facile exposing of the artery, but to allow it to be gently relaxed, after having been secured, the section of the clavicle would allow this to be done by permitting the approximation of the shoulder to the trunk, and so remove any strain or tension that the ligature might cause on the vessel, it would also remain more imbedded in the surrounding cellular membrane, and receive its supply of blood more freely to assist in the sanatory processes consequent on the operation; while the movements of the upper extremity would produce but little, if any, disturbing effects upon the artery.

The mode of conducting the operation I propose would be, after the vessel was exposed and encircled in the ligature, carefully to saw through the clavicle about its middle, having previously guarded the subjacent parts with a spatula. If any alterations follow this step in the relations of the artery they would be of little consequence, it being noosed prior to the section of the bone; no delay or hinderance would then prevent the tying of the artery. The action of the muscles which draw the shoulder to the trunk, as the subclavius and pectoralis minor should then be aided by position, and the arm retained *in situ* by a bandage.

Ibid.

From Ed. Med. and Surg. Jour., Jan., 1849, p. 186.

On the use of Oil of Turpentine in Hemorrhage By J. P. VINCENT, Esq.

(This styptic, recommended by a Mr. Yonge of Plymouth, one hundred and seventy years since, is highly spoken of by Mr. Vincent. He says:)

Some years ago, a youth was brought to me who was passing blood in his urine. I ordered some draughts, with a few drops of oil of turpentine; the bleeding quite stopped before the end of the second day, and did not return. About a twelvemonth afterwards he was brought to me, having cut his finger but slightly; it had continued bleeding for some days; I gave him turpentine again, it stopped in a day or two. Not long after, he came a third time to me; he had a tooth extracted, and it had been bleeding for several days; the turpentine was had recourse to, and the remedy soon acted in the same sanatory way. I have several times been called in on account of hemorrhages where teeth have been extracted, and have never seen the turpentine fail in this, nor in other similar cases of hemorrhage. Not only is the administration of this medicine by the mouth so efficacious, but the local application is also powerful in stopping bleeding, and happily so, as it anticipates the time the other method requires for effecting the purpose; at all events, it is a powerful auxiliary. The use of it is to be made with the injunction that no coagulum should be allowed to remain upon the part. I was on the point one day of leaving London for a few hours, when I was called upon to a case of bleeding from the socket from which a tooth

had been extracted, and that in considerable quantity, the subject being a weakly middle-aged female. My confidence was such in the power of my means, that I left instructions to clear away the coagulum, if any, and to apply turpentine to the part, and I ordered draughts of it to be taken, and went away without waiting to see the effect. I learnt afterwards that the bleeding had soon stopped, and the medicine internally was not wanted.

From The London Journal of Medicine.

Substitute for Leeches—Invented by MM. ALEXANDRE & Co., Paris.

The apparatus consists essentially of two parts—an instrument for puncturing the skin, and another for promoting the flow of blood by removing atmospheric pressure from the punctured part. The puncture is effected by a lancet, the blade of which has the form of the cutting apparatus of the leech. This lancet is fixed in the mouth of a tube, and projects about the eighth of an inch beyond the edge of the tube. It may be elevated by a small lever, so that its point shall be within the tube, in which position it is secured by a catch. Attached to the opposite end of the tube, by a piece of vulcanized India-rubber, which acts as a spring, is a piston, which is pressed down by a rod, and, on removing the pressure, is drawn back by the India-rubber spring. The piston being pressed down, the open end of the tube in which the lancet is fixed, is placed over the part to be punctured: the pressure is now removed, when the piston is drawn back by the spring, and exhausting the air within the tube, the skin is forced up into the mouth of the tube. On loosening the lever, by which the lancet has been elevated, the latter is drawn down by a spring, also of vulcanized India-rubber, so as to effect the puncture. The cutting instrument is now removed, and a glass tube, with a piston, similar to that already described, is placed over the puncture, the air within being exhausted so that the tube adheres to the part, and the blood flows freely into it. Half a dozen or a dozen tubes, each of which would draw as much blood as a large leech, might be thus attached in two or three minutes. The apparatus, consisting of a cutting instrument and six or twelve suction tubes, together with sundry implements for cleaning the lancet and tubes after use, are contained in a small case. It is very neatly got up, and, we understand, from those who have used it, is very efficient. The idea, however, is not new; so long ago as the year 1813, the silver medal was awarded at the Society of Arts to Mr. J. Whitford, of St. Bartholomew's Hospital, for the invention of a somewhat similar apparatus for the same purpose. In Mr. Whitford's apparatus the exhaustion was effected by a syringe, which was found to be inconvenient. The use of vulcanized India-rubber springs, attached to the pistons, by which efficient suction tubes are economically formed, is a great improvement in MM. Alexander's apparatus.—*Braithwaite*.

From The Medical Gazette.

A New Instrument for Vaginal Injections.

This instrument is the invention of Dr. W. Jones, who calls it the "Syphon Douche."

It consists of nine feet of gutta percha tubing, about one-fifth of an inch in diameter, divided into two parts, the one seven and the other two feet in length, capable of being secured by a union joint, and, if necessary, commanded by a stop-cock.

The upper end of the tube is immersed in a vessel containing water, either medicated or not, at a moderate temperature, and this bends over, so that by suction from the mouth it may be made to discharge the contents of the vessel on the principle of the syphon. The lower portion of the tube ends in a perforated boxwood bulb, for introduction into the vagina. The female, by connecting the two portions of the tube at their union joint, thus applies a current of water, under columnar pressure, to the vaginal passage, which may be, in this way, effectually, and for any length of time, washed out.

VI. *Ligatures made of Animal Substances.*

// Ligatures, made of the fibrous tissue of the deer, dried and twisted so as to form a small round thread, have been recently employed by Mr. Wragg with complete success in tying and obliterating arteries. This gentleman amputated the leg of a woman over 60 years of age; he tied the arteries with ligatures made of the fibrous tissue of the deer and cut the ends of the ligature close to the knot, and brought the wound together. At the end of three weeks the stump was entirely healed. No part of the ligature was afterwards seen; nor were there any abscesses, nor ulceration, indicating that the ligature acted as a foreign body. It was completely absorbed. He has repeatedly tied the femoral brachial, tibial and other large arteries with this species of ligature, and in almost every instance, the result has been satisfactory—proving that the ligature was entirely removed by absorption. This is a valuable addition to practical surgery, and the method is worthy of consideration. //We abridge the above facts from Braithwaite's Abstract, of July, 1849.—Ed.

VII. *Electricity during the organic process of Secretion in Living Animals.*

Several attempts have been made to apply some of the discoveries of Faraday to physiology; and it is known that some of these experimenters have asserted the existence of opposite electrical states in secreting organs furnishing acid and alkaline products, as the mucous membrane of the stomach and intestines. Mr. Baxter reported in the *Philosophical Transactions*, some experiments which go to show a certain constant relation between the electric condition of the mucous membrane of the small intestines, in animals recently killed, and that of the blood flowing from the *veins of the same part*. When one of the pointed electrodes was placed upon the intestinal surface, to the extent of an inch and a half, and the other inserted into the branch of the mesenteric vein, proceeding from it, a deflection of the needle to the extent of 4° or 5°, indicating a positive condition of the blood was produced, but no such deflection took place when the second electrode was inserted into the artery of the part, nor when it was placed in the vein of the other part, unless the blood of the two veins be commingled, when a slight effect is observable. We have abridged the above observations from the April No. of the *Medico-Chirurgical Review*, with the hope that some of the able chemists and physiologists of the day may take up the subject, and endeavor to give us some positive information on this curious question.

Ed.

VIII. *Suppression of Urine.*

The case of J. L——, recorded in my last paper, suggests many considerations of practical importance, and I believe this to be the only case that has been published in which recovery has taken place after so long a total suppression of this fluid, for the difference between a *total suppression of urine* and the *secretion of the smallest possible quantity* is very great; in the one, there is a reasonable prospect of recovery—in the other, the kidneys must be made to act, or death will inevitably take place. Dr. Mason Good, in his “Practice of Medicine,”* designates this disease *paruria inops*; Dr. Elliotson in his lectures,† speaks of it under the title of “*ischuria*,” and Dr. Willis has well described it by the name of “*anuria*,” or “*anuria apyretica*.” The approach is, however, so masked—the symptoms by which it may in the first hours of the attack be discovered, so obscure—there is so little pain, discomfort, or uneasiness felt by the patient, that some hours frequently elapse before a medical man is sent for, or the patient even aware that he has been attacked with a serious disorder; and in a disease like this, which runs its course to a fatal termination in a few hours, how important is it that its earliest approach should be made known! “*Aliter vitium vivitque tegendo*.”

Dr. Bright, in his valuable treatise on “Diseases of the Urinary Organs,” states, that in cases of granular degeneration of the kidneys, “total suppression of urine but seldom occurs.”

Suppression of urine, depending as it does on a variety of causes, may be either *entire* or *partial*. Three kinds are said to be known by Dr. Prout‡—1, *Inflammatory*; 2, *Spasmodic*; 3, *Mechanical*; and the symptoms will in some degree vary, according to the general character of the affection. A singular case of suppression of the urine from a mechanical cause was related to me in a letter from Sir B. C. Bordie, now before me, in answer to one, in which I had given him an outline of L——’s case. Sir Benjamin says: “In the great majority of cases of this kind that I have seen, there has been some obstruction to the flow of urine; and it is a curious fact, that a calculus blocking up one ureter, or a tumor pressing on one ureter, will sometimes stop the secretion of urine in both kidneys. In one case there was a very enlarged prostate, which, probably closed the orifices of the ureters, but the body was not examined after death. In another case, there was a medullary fungus of the mucous membrane of the bladder producing this effect. I had a patient with an enlarged prostate, which prevented him emptying the bladder. For some time he had not secreted more than half a pint daily, but the secretion immediately was trebled on the catheter being used two or three times daily.”

I remember, many years ago, opening the body of a gentleman, at St. Mary Abbot’s, Kensington. I did not see the gentleman during life; he had suppression of urine for some few days before death, and *died comatose*. There was a large abscess, which had passed backwards from the kidney, and burst into the loins, and we found a very large calculus§ of oxalate of lime; it was the size of a walnut, and occupied the whole of the pelvis of the kidney, extending into the infundibulum. The other kidney was increased in size, and had, no doubt, for some time, performed double its usual duty, and a man may for years have a calculus in one kidney, and not suffer remarkably. The most common variety of renal calculus that I have seen is composed of pure lithic acid; internally, it

* Vol. iv., p. 341.

† Lectures on the Principles and Practice of Medicine, by John Elliotson, M. D., Cantab., second edition.

‡ On Stomach and Renal Diseases, by W. Prout, M. D., p. 414.

§ The preparation was given by me to Mr. Lane, and is now in his museum, Grosvenor-place.

has a laminated appearance, and is of a light brown color. It is the opinion of Dr. Prout, and Sir B. C. Brodie* agrees with him, that the lithic acid forming this kind of calculus is secreted by one of the niammillary processes of the kidney, in a half-fluid condition, which afterwards becomes hard, the semifluid mass contracting in bulk as the hardening process goes on.

As we have seen death ushered in by coma, and a total suppression of urine for several days, in the case just narrated, in which a large mulberry calculus was found in the pelvis of the kidney, it will be interesting to consider for a moment the result, also, of Dr. Prout's investigations, as to the formation of the oxalate of lime calculus. In his opinion this calculus is never generated in a perfectly healthy condition of the kidney, and two things are necessary to its formation; the first is, that oxalic acid should exist in the system, and be secreted with the urine; the next, that phosphate, or carbonate, of lime should be supplied by the mucous membrane of the infundibulum. Sir B. Brodie has found "disorganization of the kidney to occur in a much greater proportion of cases of calculus composed of the oxalate of lime than of those of calculus composed of lithic acid;" and it is highly probable, in these cases, that the calculus is the result of an altered or diseased condition of the kidney, rather than that the diseased condition of the kidney has given rise to the formation of a calculus.

If memory serve me, there is, or was, a preparation in the museum of St. George's Hospital, London, of two kidneys, both taken from the same subject, from which the glandular structure has almost altogether disappeared. They are completely filled with calculi composed of the oxalate of lime. Dr. Prout has furnished the particulars of a very interesting case, in which he found in each kidney large deposits of calculous matter; some contained in natural cavities, to which the urine had no access; others in cysts, which evidently were the result of disease, and to which also the urine had not access. The former of these deposits consisted of the phosphate and carbonate of lime, with an admixture of the triple phosphate of ammonia, and magnesia while the latter only consisted of the carbonate of lime. Sir Benjamin Brodie, in speaking of these cases in his lectures, used always to draw attention to the fact, that this phosphate of lime, found in the kidneys, constitutes the earthy matter deposited in consequence of disease, in other structures, as in the arteries, the lymphatic glands, the valves of the heart, the dura mater, the lungs, and even, sometimes, in the uterus. I have reasons for thinking, that in patients in whom a predisposition to form calculi is present, a local injury to the loins and kidney, such as a blow or fall, exposure to cold, &c., sometimes gives rise to the formation of calculi. For additional information on this point, the reader is referred to the very interesting paper published by the late Mr. Earle,† and to the work of Sir B. C. Brodie.‡ I once attended a solicitor who had formerly been under the care of Dr. Bright, in whom a severe nephritic attack had appeared to result from eating a quantity of tart, made from the leaf-stalks of the fresh rhubarb, *rheum palmatum*; and I have long been in the habit of strongly advising patients in whom the oxalic acid diathesis is the predominating evil, most carefully to avoid partaking of this delightful vegetable.|| Dr Prout relates

* On the Urinary Organs, p. 223. † Medico-Chirurgical Transactions.

‡ On the Urinary Organs, pp. 228, 229.

|| On boiling very thin slices of the root of the Russian rhubarb in water, if we place them under the microscope, we observe that they are composed of cellular tissue, anular ducts, and numerous conglomerate raphides, (masses of crystals of oxalate of lime.) Mr. Quekett produced from 100 grains of Russian rhubarb, from 35 to 40 grains of these raphides. These crystals are not, however, peculiar to the Turkey rhubarb; they are equally abundant in that supplied to the English market. Raspail has stated that these crystals are situated in the interstices of the elongated cellular tissue; but this statement is erroneous, the situation of the crystals being in the interior of the cells, as proved by Dr. Pareira.

that he has seen well-marked instances, in which an oxalate-of-lime nephritic attack has followed the free use of rhubarb in the shape of tarts.*

It is right that the student should know the circumstances under which suppression of urine, arising from mechanical obstruction in one or both kidneys, exhibits itself. Let him next bear in mind this important fact, that in all cases of suppression of urine, from whatever cause arising, if no urine be separated from the blood, death, ushered in by coma, quickly takes place. Death is said to result from urea being detained in the system; this substance, in the healthy condition of the body, is only to be looked upon as excrementitious, and which the kidneys, in the proper exercise of their functions, pump out from the blood as fast as it enters that fluid. If the kidneys, from whatever cause, cease to secrete urine, this substance accumulates in the blood, is carried with it to every part of the body, and acts as a poison, but more especially upon the brain.

Here let us pause a moment to remark how the blood may become the herald of death and disease, if matters of a deleterious character, which, as Dr. Watson remarks, "pertain to the unceasing processes of organic life," be not separated from it. If the action of the kidneys cease, urea, as we have just pointed out, collects in the blood, and the brain is poisoned; if from want of pure air, or any other circumstance, the lungs cease to separate carbonic acid, the animal functions are soon extinguished; if the liver no longer extracts from the blood the excrementitious bile, mark the declining powers of life, which soon becomes extinct. So, also, numerous maladies spring from a suppression of the catamenial discharge, which appears to give relief by the separation of a highly carbonized blood from the system.

I stated, in a former part of this paper, that it would be necessary to notice certain exceptions to the general rule, that suppression of urine speedily proves fatal. Patients suffering from cholera† will sometimes remain for days without

* Fourth edition, p. 70. There is a very interesting paper, by Dr. E. Ballard, of East Retford, on Oxaluria, in the *Provincial Medical and Surgical Journal*, 1847, which will repay attentive perusal.

† Since the above was written, my attention has been directed to a very elaborate paper in the *London Journal of Medicine*, from the pen of Dr. A. B. Garrod, "On the Pathological Condition of the Blood in Cholera," to which the reader is referred, as it will repay an attentive examination. He says that urea had been detected in the blood, and other fluids in cholera; but in most cases its amount was not estimated, and no relation between the quantity of this principle and the stage of intensity of the disease observed. In some cases (ii. & iii. Tooting children) to which he refers, no urea was found, and it certainly did not exist to any considerable extent in the blood. Still Dr. Garrod remarks, "from the small amount of the blood examined, a quantity greater than in health might have escaped discovery, and that such was the case we have some evidence in the increased amount of uric acid, which, when suspension of the urinary secretion takes place, is found in excess in the blood along with the urea, and can be more easily discovered, not being so liable to suffer decomposition." Dr. Garrod found, also, that "urea gradually increases in amount from the cold stage to that of febrile reaction." The explanation of this phenomenon is, I think, exceedingly simple; for I should imagine that in intense and sudden collapse, not only is the function of the urinary excreting organ diminished or suppressed, but also that the vital metamorphoses, and consequently the formation of urea, are likewise suspended. When partial reaction commences, the vital changes again take place with greater energy, and if the functions of the kidneys still remain torpid, urea, as a necessary result, increases in the blood, the amount depending on the degree of the reaction, and the extent to which the urinary secretion is suppressed. Thus, in case v., (a sailor, aged thirty-nine,) urea was sought for twice; first, when the patient was in a state of partial collapse, and next, in the blood taken from some of the large vessels after death. In the partial stage of collapse, 1000 parts of blood contained 0.38 parts of urea. after death, partial reaction having taken place, as much as 0.92 part was obtained from the same quantity of blood. In another case, where reaction had been restored, and the patient was suffering very considerably from

secreting a drop of urine, and yet recover. In such cases I have no doubt that the urea is drained from the blood by the continued and enormous evacuations from the stomach and bowels.

We have on record some truly singular stories of persons remaining for days, and even for weeks, without secreting a drop of urine, and who yet have continued in a good state of health. Some of these narratives are evidently altogether unworthy of credit; others are sufficiently well authenticated to demand at our hands a careful examination. A case occurred to Dr. Parr, in which no urine appeared to have been secreted for six weeks.* Haller gives some particulars of a case which continued for twenty-two weeks,† and in the *Philosophical Transactions*,‡ various instances are recorded of a similar kind; among them is one described by Dr. S. Richardson, of a youth of seventeen years of age, who had never made water from his birth, nor felt any uneasiness on this account, being perfectly healthy, active and vigorous. The following very curious case, related by Dr. Salmon Arnold,§ is that of a young woman who labored under a retention of urine for two years, and through the integuments of whose lumbar region, a fluid resembling urine oozed in abundance, whenever the catheter was not introduced at the usual periods. In September, 1822, seventy-two hours once elapsed without the instrument having been used; in the course of this delay, a liquid completely like urine is stated to have been discharged from the right ear, first by drops, and then in a large quantity at a time. The discharge continued on the following days, amounting to about eight ounces in each twenty-four hours, and was always preceded by painful sensations in the eye and ear. Whenever the discharge happened to be interrupted or diminished, a general anxiety used to come on, with severe headach, and then delirium. Occasionally, violent spasms, like those of opisthotonos, were produced by the same cause, followed by syncope and complete insensibility. Deafness and loss of sight afterwards occurred in the right ear and eye. These symptoms continued till the end of 1824, the discharge issuing alternately from both ears and the left eye, which became considerably inflamed. In March, 1823, the patient began to vomit up a fluid precisely similar to urine. In April the right breast became swollen, tense, and painful, and shortly afterwards, some drops of fluid were discharged from the nipple. In twenty-four hours these phenomena ceased, but re-appeared a week afterwards, and now the liquid voided was of a lemon color and was proved by analysis to contain urea. In May, 1823, after some pain and tension about the hypogastric region, a fluid exactly like what had been evacuated from the preceding organs began to ooze from the navel. A similar evacuation next commenced from the nostrils. The fluid from all these quarters was analyzed and found to contain urea. It contained, likewise, the alkaline sulphates, muriates, and phosphates. During the foregoing occurrences, a small but varying quantity of urine continued to be voided from the bladder; and occasionally, the urinary fluid discharged at different points was preceded by an oozing of blood. When care was taken to pass the catheter very often, the discharges were lessened, but not entirely stopped. In the autumn of 1824, the evacuation of urinary fluid from the right ear, breast, and navel still continued, though in a

head symptoms and fever, the 1000 parts of the serum of the blood taken during life yielded 1.14 parts of urea.

These experiments of Dr. Garrod are exceedingly interesting and important; the explanation above given of the reason why urea varies in the quantity in which it is found in the blood at the different stages of malignant cholera, are those adopted by Dr. Garrod, after numerous experiments, and tend to confirm the well-known opinions of Dr. O'Shaughnessy in the former visitations of this country by the disease.

* Dict. in verb Ischuria. † Bibl. Med. Pr. ii., p. 200. ‡ Vol. xxviii., year 1728.

§ New England Journal of Medicine and Surgery, Boston, 1823.

diminished quantity, notwithstanding the patient was not severely ill, and could get up and walk about. At that time, a good deal of urine was passed in the regular way, and the evacuation of a similar liquid from the eye, stomach, and nostrils, had for some time ceased.

Dr. Mason Good,* speaking of cases of this kind, well remarks, "that the constituent principles of so important a recrement as the urine cannot remain in the system, and load the blood, without danger. 'The outlet,' he continues, "at which these are separated and discharged, is not always manifest; and hence they appear sometimes not to be separated and discharged at all; though, if the state of the patient be critically examined into by the accurate pathologists, the vicarious channel will generally be detected; and most of the cases, which must, at the present, range under the species before us, ('paruria inops,') would be transferred to that of 'paruria erratica.'"

The two most common einunctories which supply the place of the kidneys appear to be the bowels and the skin.† We have had an example of the effect of large evacuations from the stomach and bowels in cases of malignant cholera; for with total suppression of urine there is no coma. In the case of Dr. Parr, already alluded to, there was no vacarious evacuations, except a profuse sweat for a day or two. In this case there could not have been any imposture; the patient was in an hospital, and constantly watched; no mention is made of the state of the evacuations from the bowels. In Dr. Richardson's patient there was an habitual diarrhœa. In the very curious case of Dr. Arnold the symptoms have already been sufficiently described.

M. Andral infers‡ that the blood contains, in variable proportions, the elements of all the secretions; that, under ordinary circumstances, these elements are separated from the circulation only by those organs whose special structure is adapted to bring about such separation; but that, under particular states, these elements may be separated from the circulation by other channels than those regularly intended for the purpose; not, indeed, in the condition of perfect secretions, but in a more simple form, containing, however, the essential elements of these secretions.

The conclusion to which the majority of the most celebrated chemists have arrived is, that the urea excreted by the kidneys is derived, for the most part, from the transformation or decay of the textures of the body; most of their carbonaceous matter being abstracted by the affinity of the oxygen of the blood, and carried off by the lungs in the form of carbonic acid gas.

The effect of the non-secretion of urine on the system has been proved also by the experiments of Dumas and Prevost on animals in which they had extirpated the kidneys. On the third day after the operation, the poor creatures were seized with vomiting, and a profuse diarrhœa of a brown liquid, which, Dr. Day § informs us, the recent researches of Bernard and Barreswill have proved to contain a considerable quantity of ammoniacal salt, resulting from this elimination of urea from their surface. Fever, with heat, varying, sometimes as high as 110°, and sometimes as low as 92°—accompanied this purging; pulse very

* Practice of Physic.

† Dr. Cornack, of Putny, has kindly favored me with a note, after reading my former paper, in which he draws my attention to a case under his care, in which "there was a suppression of urine, and apparently elimination of its elements by the breath and skin." Dr. Garrod has shown, in his Lectures in *The Lancet*, 1848, that the skin does very often act vicariously for the kidney; and that it throws off, even naturally, urea from the blood. Urea in the breath and saliva was first detected by Landerer, of Athens.

‡ Andral. *Anat. Pathol.*, tom. i., p. 337.

§ London Medical Gazette.

small and frequent; respiration oppressed. Death took place from the fifth to the ninth day.

The post-mortem appearances were, effusion of serum on the brain; copious mucus in the bronchi, and bilious fluid and feces in the intestines. The urinary bladder was much contracted, and the liver appeared inflamed. The blood was more watery than natural, and was found to contain urea. From five ounces of blood taken from a dog, twenty grains of urea were obtained; and two ounces of blood, taken under similar circumstances, from a cat, yielded ten grains.—London Lancet, Oct., 1849.

IX. Medical and General Treatment of Local Disease in Preference to Operation.

THOMAS HUNT Esq., has written some interesting papers on this subject in the *Prov. Med. and Surg. Journ.* (May 2, 1849). In one of them he gives the following as his conclusions:

"The extirpation of morbid growths may be said to be *indicated* (their position being convenient for operation): 1. Wherever the disease is clearly the result of local or mechanical irritation from some external source. 2. Whenever the tumor is neither painful, tender, nor progressive, the health being good. 3. Whenever it can be fairly demonstrated that the pain of irritation of the tumor being the primary and sole cause of disturbed health, its removal will be the less of two evils. 4. A tumor in the mamma, originally depending on disordered health, may, after the health is restored, become painful from the pressure of the dress, and thus the absorbent glands may be excited, and the uterine functions disturbed. Excision may be justifiable in such a case; but the proper time must be chosen, and great attention should be paid to the health subsequently.

"The extirpation of morbid growths may be said to be *contra-indicated*; 1. When failing health precedes or accompanies the appearance of local disease. 2. When the disease is advancing, the tumor sensibly growing, no local or mechanical cause of irritation being apparent. In this case, it is right to assume the existence of latent constitutional disease, and to treat the case medically, rather than surgically. 3. When there is a plurality of tumors. 4. When the disease reappears, whether soon or late after an operation for its removal.

"The reader will observe that these rules contain little reference to the condition of the absorbent glands connected with the tumor, although surgical writers of the highest eminence have generally pointed out this circumstance as the one grand distinction which indicates or interdicts excision. Swollen axillary glands have always been held to be a strong objection to the removal of a tumor in the breast; and, on the other hand, a healthy condition of these glands has been admitted as a proof that the system is not contaminated, and that therefore the disease may be extirpated by the knife. Against this doctrine (which appears to have been adopted, by surgeon after surgeon, from preceding writers, without much reflection), I must enter my most earnest protest. Nothing can be more fallacious in theory, or unhappy in its practical results. Nothing is more common than the enlargement of the axillary glands from inflammation of the fingers, as in whitlow, or the introduction of any irritating matter or animal poison into the fingers. Yet, who infers from this circumstance, that these glands are the seat of incurable disease? They become irritated and swollen, but the irritation and swelling subside spontaneously as soon as

the exciting cause is removed. On the other hand, malignant disease may pervade the whole system, and become developed in the mamma or any other organ, and exist in the form of a tumor for months together, the health evidently giving way, while the absorbent glands remain unaffected. The conclusion is, that it is not always advantageous or safe to amputate when the absorbent glands are sound; nor, when they are swollen and tender, and inflamed, do they present any absolute proof that the whole system is contaminated. In those cases *where the question of excision can be entertained at all*, it is impossible to tell whether this secondary affection of the absorbent system be merely the effect of irritation, or an actual extension or translation of malignant disease. How, then, can any thinking man regard it as an important indication for or against an operation.

“Happily, hospital surgeons are becoming at length practically alive to the fallacy of this distinction; and it is one of the most pleasing features of the improved condition of modern surgery, that the treatment of morbid growths by extirpation, is now the *exception*, and not, as formally, the *rule*.”

American Journal of the Medical Sciences.

Part Fourth.

AMERICAN MEDICAL INTELLIGENCE.

I.—*Abstract of the Proceedings of the Mobile Medical Society.*

Chloroform in Convulsions of Children—Yellow Fever—Croton Oil in Bilious Colic, used Externally.

MOBILE, Friday, August 17, 1849.

THE Mobile Medical Society met pursuant to adjournment. The Vice-President, Dr. F. A. Ross, in the chair. Drs Anderson, Barnes, Gaines, Hicklin, Jenkins, Ketchum, Lopez, Massey, Miller and Walkly were present. Dr. Walkly stated that he had seen, since the last meeting, a very severe and protracted case of convulsions in a small child, in which all the usual remedies had failed to procure relief, and the child was fast sinking. He had administered chloroform by inhalation, and the convulsions had ceased, and the child had, up to this time, remained free from any recurrence of them.

Dr. Gaines read the notes of an interesting case of fever which he thought had simulated Yellow Fever in many respects. The attack was characterized by pains in the head, back and limbs; dry furred tongue; abdominal tenderness; nausea; a gaseous bubbling pulse, and much restlessness. The disease had run through its stage of reaction, and was in the state of calm which usually precedes for a few hours the stage of collapse, when another medical man was called in, who bled and purged the patient with the effect of hastening the collapse. In a few hours he died, having previously thrown up fluid which the attendants declared to be black vomit. Dr. Gaines hoped that the Society would give their opinion with regard to the diagnosis in the case.

Dr. Ross remarked that it was difficult to decide upon a name for the disease without having seen the subject of the attack, as the symptoms described were to be seen in both yellow and bilious remittent fever. He said that within the last week he had been attending a child three months old, with convulsions, which had recurred from time to time for twenty days. There were intervals in the attack of apparent exemption from disease; but that the child at no time had a healthy appearance. Twenty-four hours preceding death, it had vomited a fluid resembling the lees of port wine, and the skin had assumed a lemon tinge. Here were symptoms usual to Yellow fever, yet this could not be called an attack of that disease.

Dr. Hicklin enquired if there were not frequently cases of Bilious

Fever occurring during August, September and October, where a black fluid was ejected. He had seen such cases in his practice in Mississippi. The black vomit generally appeared from the fourth to the eighth day. In violent cases, sometimes as early as the third day. This disease was not called Yellow Fever there.

Dr. Lopez said he had seen dark ejections from the stomach in many cases, where there was much Hepatic derangement. He had noticed that *drunkards*, particularly, threw up a fluid of this description during severe attacks of Gastro-Hepatic fevers. Pregnant women, too, he remarked, had vomitings sometimes of this dark colored fluid. So that he thought that vomiting of black fluid was by no means a pathognomonic sign of Yellow Fever.

Dr. Ketchum said he had used croton oil in a case of Bilious colic, as recommended at a preceding meeting by Dr. Nott. He had applied to the umbilicus first, four drops—and after a few hours, eight drops, without producing any purgative effect; though in the same case, a brisk cathartic action soonafter was produced by one ounce of castor oil.

The Society adjourned, to meet again on Friday evening, August 31st.

Chloroform. in Epilepsy—Injections of Tobacco in Bilious Colic—Post Mortem in Dropsy.

FRIDAY, August 31, 1849.

Dr. Barnes called the attention of the Society to the case of a man who had entered the city Hospital, laboring under an attack of Intermittent Fever. On the fourth day, he was seized with epilepsy, succeeded by phrensy of a violent character. He was treated very actively—brisk cathartics were administered—he was cupped freely and blistered, but without relief. Chloroform was then resorted to, and under its continued use, the symptoms soon abated and the man recovered.

Dr. Ross mentioned a case of bilious colic in which tobacco injections had been used very successfully. The patient had been sick for a few days, when he very imprudently indulged freely in oysters, and was very soon afterwards seized with a violent attack of colic. The Doctor stated that he saw him on the fourth day of the attack in consultation with Dr. Innerarity. Sulphate of Morphine had been freely used, but without any relief to the pains—the medicine seemed to affect the brain only. A warm bath was ordered, and tobacco injections administered; by these means relaxation was soon produced; croton oil was then given and it operated freely; warm poultices to the abdomen and enemas of flax-seed tea constituted the remainder of the treatment, and the patient rapidly convalesced.

Dr. Barnes stated the post mortem appearances exhibited by a patient who had died of general dropsy. The disease had existed about three months—though no treatment had been pursued until three days before death. The brain was not examined. Effusion existed in both pleuræ and the pericardium. The heart was hypertrophied, and the valves much diseased. The walls of the auricles were thinned and the cavities contracted to a very small size. The spleen was much

enlarged, and easily broken down by the fingers. The other organs were normal.

Congestive Fever—Puerperal Convulsions—Precocious Development—Chloroform Internally and Externally.

FRIDAY, September 14, 1849.

Dr. Jenkins said he had seen some cases of congestive fever since the last meeting of the Society, and mentioned the following case as illustrating the type and treatment pursued: A man about twenty-eight years of age had been seized with a chill the day before the Doctor saw him. He had been violently purged, and presented much the appearance of a man in the collapsed stage of cholera—surface cold; breathing oppressed; nausea constant and distressing; pulse quick and thread-like, and much prostration. Mustard plasters were ordered for the extremities and epigastric regions, friction was ordered to be kept up continually, and brandy and quinine were exhibited internally. Reaction came on and the patient recovered.

Dr. Barnes stated that he had been in attendance upon a very severe case of puerperal convulsions, and gave the following history of the case: The patient was a negress fifteen years of age, had been in labor ten hours; the convulsions commenced an hour or two before Dr. Barnes saw her. She was lying in a stupor and breathing heavily when he saw her. The uterus was high up in the abdomen, and the os uteri, at that time, could not be reached; pulse was quick and weak. Prescription, a weak brandy Julep and a warm pediluvium. Soon after the convulsions returned with violence, and chloroform was resorted to. It arrested the convulsions for a few moments, but they soon returned with increased violence. After the lapse of five or six hours, the stupor had increased, delirium had now set in, and the pulse was more full—she was bled, with but partial relief. Dr. Mordecai saw the patient at this time, and advised one-third of a grain of antimon. tart. every three hours, and leeches to each temple. The os uteri was now plainly felt to be dilated to about the size of a dollar. The convulsions were not at all arrested by the remedies, and the patient died at 4 o'clock, A. M. Twenty-three hours after she had been first seen by Dr. Barnes, no pulsation of the foetal heart could be heard for some hours previous to death.

Dr. Ketchum related the following instance of precocious development that he had met with in a family of negroes: The mother, Diana, was just thirteen years of age when her first child was born. This child, Tyra, was now twelve years and three months old, and had been menstruating eighteen months. She was three months advanced in pregnancy. Her breasts are large and full, though otherwise, she has the appearance of a young girl of eight or nine years of age. Her younger sister, Mary, is just nine years of age, and has been menstruating regularly since the spring of 1847. If Tyra carries her foetus until term, her mother will become a *grand-mother* before she is twenty-six years of age.

Dr. Ketchum remarked that he had made three different applications of chloroform since the last meeting of the Society. The first was its

administration by inhalation in a violent case of hysterical convulsions, occurring in a young woman twenty-one years of age. The convulsions were suspended on several occasions by the timely use of the remedy, and under its continued application they ceased entirely, and up to this time, had not returned. The patient had suffered much from similar attacks before, and had a sister who died during a paroxysm of the same disease a few years since.

The second was its topical application in a very painful neuralgic affection of the face and one side of the scalp. The patient was entirely relieved by wetting a handkerchief with a few drachms of the article, and applying it along the painful course of the nerves.

The third was its use by inhalation in a case of tedious and difficult labor. The subject was in labor with her first child. The waters had been evacuated by the first pains, and the child was presenting by the breech. Under the circumstances the labor promised to be a long and painful one. The chloroform was used, and the patient kept under its influence about ten hours. The regularity and efficiency of the pains were in no wise disturbed by its use, and the suffering and subsequent prostration was not at all in proportion to the difficulty of the labor.

Dr. Ross said that the only case of interest, that had occurred to him since the Society last met, was one of congestion of the brain, occurring in a child. When first seen, he was in a chill, which lasted twenty-four hours. A very irregular fever then came on—hands and feet cold and the head very hot—pulse quick. The child was completely comatose. Warm bathing, leeches to the temples, and brisk cathartics resorted to with good effect. Afterwards quinine was given and the child improved rapidly under its use.

Convulsions in Children—Yellow Fever, ending in Black Vomit—Drunkards throw up Black Vomit—Cholera—Chloroform in Convulsions—Experiments with this article by Majendie and Barnard, of Paris—Chloroform in Labor.

SEPTEMBER 27, 1849.

The meeting was called to order by the President, Dr. R. L. Fearn.

Dr. Ketchum read a paper on the subject of "Periodicity in Disease."

Dr. Miller reported a case of infantile convulsions, in which, after the failure of other remedies, he used chloroform with the most perfect success. In answer to an enquiry from the President, as to the prevailing type of disease in his practice, he remarked that intermittent and remittent fevers predominated over all others.

Dr. Hicklin said he had seen a well marked case of Yellow Fever. The history of it he gave as follows: The patient was a young man twenty-five years of age, recently arrived here from St. Louis; he had remained a few days in New Orleans. He was seized with the attack the day after his arrival here. From the first, his disease presented all the characteristics of Yellow Fever. On the second day there was a distinct remission in the fever, and relief of the pains, &c. The Doctor gave him a dose of quinine, but another paroxysm of fever came on with some delirium. On the fourth day the skin was moist, the pulse

regular, and the patient calm. In a few hours hemorrhages from the mouth, nose and bowels came on, attended by delirium and restlessness, and in a short time black vomit made its appearance, and the patient died on the fifth day. The corpse was yellow and ecchymosed in many places.

J He remarked that the majority of the cases of disease, which came under his notice, were of an intermittent type. Dr. Nott said he had seen a case of disease in which the vomiting resembled very clearly the black vomits of yellow fever. The man was very intemperate in his habits; had been in the city five days, and had been sick all the time. He complained of a burning sensation at his stomach and much nausea. The pain in his head and back was also very severe. The Dr. said, he would not call the case one of yellow fever, because he thought that the character of the fluid vomited might be accounted for by the intemperate habits of the patient.

11/ Dr. Ross said he had seen a case of cholera. The subject was a boy employed on one of the boats plying between New Orleans and this City. He had drunk very freely of cold water, and in a short time afterwards, was seized with violent cramps and the other symptoms of cholera.

When seen by Dr. Ross, he was in a collapsed condition, with a shrivelled countenance, a cold perspiring skin, cold tongue, and a very weak voice. His muscular strength, however, did not seem to be much impaired, as he would get up and walk about unassisted. Dr. Ross directed a warm bath—brandy and a mixture of ether, camphor and capsicum. No re-action ensued, until an hour before death, which occurred in 30 hours from the accession of the attack; no post mortem examination was held.

Dr. Ross stated that the prevailing types of disease in his practice were of a congestive and remittent character. Dr. Walkly observed that he had been called to see a child 14 months old, in convulsions. The spasms were confined principally to the right side. The gums were lanced, and the usual remedies in such cases resorted to, with but little apparent success. He at length made use of the chloroform, which, in a few moments, succeeded entirely to his satisfaction. The convulsions did not return.

Dr. Anderson remarked that he had seen a case confirmatory of the above. The child was 12 months old, and had been in the attack about 3 hours when he first saw it. The parents, under the direction of a physician had made use of many remedies, but the child seemed to be in no degree benefited by them. He advised chloroform, and it was used with entire success. The administration of it was kept up for several hours on account of the tendency that the convulsions manifested to return. He thought that about $\frac{3}{4}$ of the article had been used. Dr. Anderson stated to the society, the result of some very interesting experiments that he had witnessed in Paris, under the direction of Magendie and Barnard, with the chloroform and letheon. They found that the inhalation of these articles by the human subject might be continued, until the countenance began to assume a livid hue, showing a tendency to a change of color in the arterial blood, and that beyond this point it was dangerous to push the inhalation.

They experimented on many different animals, and a change in the hue of the schlerotic coat of the eye marked the point to which they could proceed with impunity. If the inhalation was suspended at this time, the animal revived, and the agent might be again used in a few moments; but if they continued the experiment, after noticing this change, but a short time fatal effects would follow. To conduct the experiment, a vein and an artery were each opened, and the blood allowed to flow in a very fine stream—after an uncertain period, a change in the color of the arterial blood was noticed, and simultaneous with this, the livid appearance of the schlerotic coat of the eye might be observed. The spinal marrow was also laid bare, and it was found that sensation in the nerves was lost from the periphery towards the center; and when it returned, this phenomenon was reversed.

Dr. Ketchum gave the details of a case of Phthisis pulmonalis, in which cod liver oil combined with an infusion of *Prunus Virginiana*, had been used with much apparent benefit. The progress of the disease in the case seemed to be completely arrested; the expectoration had diminished very much in quantity—the dropsical effusions in the lower extremities had disappeared. The appetite and digestion were much improved, and the patient had regained much strength and some flesh. The disgusting taste and smell of the article had been destroyed in a great degree by the patient chewing, both before and after taking a dose of it, a small piece of orange peel.

Dr. Hicklin remarked that he had a patient, who had been using it 3 weeks, without deriving any advantage so far.

Dr. Anderson observed that he had seen it extensively used in France, and that but few cases were benefited by it.

Dr. Fearn reported two interesting cases of labor, in which he had used chloroform with much benefit.

The 1st case, was that of a young woman 14 years of age, in labor with her first child. The labor had continued 48 hours, and the waters had been evacuated 18 hours. Her suffering seemed to be extreme, and she was much prostrated; on examination an arm, and the cord were found presenting. The os uteri was contracted firmly on the arm and in consequence, it was found much swollen and livid. The efforts to dilate the os uteri were ineffectual. The patient was freely bled and chloroform administered. Taking advantage of the relaxation produced by the nausea, which followed the bleeding, the Dr. introduced his hand, turned the child and succeeded in bringing down the feet, Ergot was then administered, and in a short time the child was born alive. Dr. Fearn attributed much of the success in this case to the chloroform, and the prompt action of the ergot.

The 2d case was one in which the uterus seemed paralyzed by the distension, produced by the unusually abundant quantity of water, that it contained. The woman had been in labor 3 days and nights; it was her 3d child. When seen by the Dr. the expulsive pains had ceased, though she was excessively irritable and restless, and complained much of the pain she suffered from the contractions of the circular fibers. The os uteri was in such an irritable condition, that it was almost impossible to make an examination. Chloroform was administered, and by its use this condition of the system and uterus was calmed, and labor began

again, and in a short time the child was born without further difficulty. No bad symptoms followed in either of these cases.

Dr. Ross made a few remarks on the subject of the appointment of Coroner in Mobile County. He thought it was important that the office should be in the hands of some medical man, and offered a motion to the effect, that a committee of two should be appointed to inquire into the subject, and present a report of the same at the next regular meeting of the Society. The motion was carried, and Drs. Ross and J. E. Nott appointed committee.

GEO. A. KETCHUM, M. D.,

Sect'y of Mobile Medical Society.

II.—*Pauperism—Hospitals, etc.*—By Professor Hamilton, Editor of the Buffalo Medical Journal. The following observations are so just and well-timed, that we copy some of them for our readers. Although they refer chiefly to *Pauperism*, yet many of them are quite applicable to our own Charity Hospital, and as we intend in a future number to advert to this subject, we the more willingly give the subjoined extract.

EDITOR.

The subject of charitable relief for the indigent sick, is one which it belongs peculiarly to the Physician to investigate and discuss. The practitioner of medicine, by his daily professional avocations, necessarily becomes more conversant than other classes of society, (the Clergy, perhaps, excepted), with the sufferings and wants incident to poverty and disease. It is to be expected, therefore, that he will be more competent, than most others, to judge respecting the adequateness and appropriateness of means employed for the relief of those of our fellow beings who are thus doubly afflicted, and, also, of the efficacy of measures designed to prevent the evils of this two-fold calamity. The subject is one which commends itself to the attention and feelings of most members of the medical profession, for, notwithstanding the charge that constant familiarity with suffering begets indifference, we do not hesitate to assert, that by no other class of society, as a class, are the appeals of indigence and illness more deeply felt, and by no other class are they more heartily responded to. The history of all most every successful institution, or scheme for charitable relief, wherever situated, will illustrate the correctness of the foregoing assertion. Few, indeed, are the instances in which medical men have not, on such occasions, contributed their share of philanthropic interest, and active service.

We make no farther apology for, or introduction to a few discussive remarks on *Pauperism*, and *Hospitals*. What we shall say, (as usual), will be said with the intent only of presenting some ideas for the consideration of our readers. We shall make no attempt to treat of the subject comprehensively or elaborately. For this the medical Journalist

seldom has time or space, whatever may be the theme of his lucubrations.

Circumstances, heretofore, have led us to bestow considerable reflection on the subject of pauperism and poor-houses, and, we may add, our opportunities for personal observations in this department of charitable relief have not been inconsiderable. We are satisfied that the entire system as adopted in this country generally, at all events by this State, is radically wrong, founded upon erroneous principles, useless, and even injurious in its results. This opinion is expressed strongly, and the reader may think, rather rashly. We will briefly state some of the reasons for such an opinion.

We submit, in the first place, that pauperism has no valid, intrinsic claims to countenance and support in our country. The fact of its existence should be considered a libel upon our free institutions, and instead of being protected and provided for by legal statutes, it should not (in our opinion), be recognized by law, or, if any action be had upon it, prohibited, on the same principle that arms-asking is generally made a penal offence.

This position can be sustained in two ways. First, theoretically, it is a legitimate deduction from the nature of our civil and political organization, which is supposed to involve absence of unequal legislation, as well as of hereditary privileges, and aristocratical monopolies; the excess of soil over the numbers for its cultivation, being, at the same time, taken into account. It seems to us susceptible of proof, that if pauperism should, at any time, be developed under our government sufficiently to call for legislative provisions, the fact is evidence of something wrong in the government itself, and that the latter is the place for the radical remedy to be applied. But the limits and scope of this article preclude the discussion of the question in this aspect. Let us then direct our attention to a more practical view, and take into consideration a few facts bearing on the subject.

Of the number of paupers receiving relief in this county, (and, so far as we know, the same is true of other places), by far the greater portion are foreigners. According to the report of the Superintendents of the Poor for the year ending October, 1848, but 153 out of 984, (the whole number relieved at the poor-house), were native Americans. If from the indigenous paupers, we were to deduct those who should have been sent to an hospital rather than to a poor-house, the number would probably be diminished by, at least, one half. Now we suggest, as a questionable proposition, whether we are bound to maintain *foreign* paupers as *paupers*? It may be assumed that we are under no obligations to do this, inasmuch as we have had no agency in making them such, but they have become so from the unequal influences of other governments. It may be said, with at least a show of plausibility, that it is quite enough if we offer them a free government, equal laws, and every facility to derive sustenance from our common mother earth. But a better reason for denying this privilege is, that it is very doubtful, if, in reality, it is charitable, either in the abstract, or in its individual application to the greater portion of the individuals themselves, to provide for their support as paupers. The public are not generally aware

of the fact, (which would hardly be credible to one who had not satisfied himself of it by observation), that a considerable proportion of the foreigners who become inmates of our poor-houses, are not paupers by necessity, so much as by inclination. Their associations and aspirations tend to pauperism as the cherished social condition of life. They are not conscious of any sense of degradation, but calculate upon a poor-house, not only as an available resource, but as a desirable attainment, as much as some other individuals look forward to a pecuniary competency as the crowning success of their labors. These persons are paupers by education and profession. Some emigrate with no other intention than to become candidates for our poor laws. Nor is this so strange, when we consider that if they were not paupers at home, their condition was nearly as low in the social scale, and far less comfortable. Compare the situation of our meat-fed, well-housed, warmly-clad, non-worked pauper, with the half-starved, cellar-lodged, semi-naked, over-worked factory operative, in the country of our ancestors—the richest kingdom on the globe, and the fact just stated is not so amazing as it may at first appear to be. We have said that it is doubtful if it be charitable to offer this class of persons the advantage of pauper asylums. They are not wholly responsible, it is true, for the views and feelings they have acquired under other governments, but instead of confirming such views and feelings under our government, would it not be a wiser and better policy, and should we not confer on them a more substantial benefit, by endeavoring to teach them to respect themselves as independent, self-relying citizens? Let us offer them a hearty welcome, free institutions, and every encouragement and assistance to render themselves honorable, useful, and happy. If they are afflicted with disease, it is our duty to afford retreats, or hospitals, where every means will be employed for their restoration to health; but let us say to them, we cannot receive you as paupers—pauperism has no place here. It belongs on other shores!

The effect of our present poor-system upon the immigration of foreign paupers, or of those who have no reluctance to become candidates for our poor-houses, is deserving attention. It operates, in fact, as a bounty on the constant importation of that class of persons; and the consequence is, that pauperism is steadily and largely on the increase.

The expenditure required to sustain the present poor-laws, is the occasion of incidental evils of no small magnitude, acting as a preventive of, or substitute for, other modes of charitable relief, which are unobjectionable, and would be far more useful. Our hospitals, orphan asylums, etc., cannot be sustained by taxation, because the poor-fund is already so large as to be considered burthensome; and the tax-payer refuses to make voluntary subscriptions for these objects, because he is taxed so heavily for the support of the poor. He considers his conscience discharged of the claims of charitable relief by the requisitions of the law.

But to abolish the present system, it may be said, would interfere with the claims of a certain portion of those who seek refuge in pauperism. A very small proportion of the inmates of our poor-houses, it will be admitted, are driven there by a hard necessity, which should

render them candidates for our warm sympathy and ready protection. But, while this is the case, another portion are made paupers solely by the operation of the present system. There are, in every community, certain individuals who, from degradation, recklessness, and improvidence, sooner or later find their way to the poor-house. For these individuals, true charity consists in efforts to develop and strengthen sentiments of independence, self-reliance, and providence. To place at their command the resources of a poor-house, is directly the reverse of this, and if this resource did not exist, it might, with more success, be urged upon them to achieve a higher destiny than pauperism.

But deducting the number of those to whom these considerations will apply, there will still remain a balance in whose behalf, it will be said, the present laws are required, and with reference to whom they are beneficial in their operation. There are, and must be, some whose necessities are to be provided for,—who are, in other words, proper subjects for charitable relief. But the number of these is so small that legal enactments are wholly unnecessary. Abolish poor-laws; and private charity, or that of religions, or of voluntary associations, will be sufficiently ample to reach them all; and the latter will have in addition, this advantage over public charity, viz: the relief will be more considerably bestowed, and be rendered more complete. It is not one of the least of the evils of the present system, that it tends to repress (as already remarked), individual acts of benevolence. The fact that the law makes provisions for pauperism, shuts out, in many instances, all the reciprocal advantages which would flow from individual acts of charity, as well as all interest in, or knowledge of the subject of charitable relief.

Buffalo Medical Journal., Oct. 1849.

III.—*Rupture of the Œsophagus.*

Misal Ballard, æt. 30, of leuco-phlegmatic temperament, and delicate constitution, on the afternoon of Thursday, Sept. 13, accidentally swallowed the pit of a red plum, (*prunus Americæ*), which got arrested in the preternaturally contracted calibre of the Œsophagus, causing intense pain and considerable dyspnœa. At the age of three years, he unfortunately swallowed a solution of caustic potash, from the effects of which he very narrowly escaped with his life. The Œsophagus, or its mucous membrane, was supposed to have been much injured, and on cicatrization, to have become greatly constricted, as he ever subsequently suffered from dysphagia, and occasionally from the lodgment of some substance, at a point evidently closely proximate to the stomach. The amount of contraction may be estimated from the circumstance of his inability to propel, by the natural action of the muscular tube, a kernel of corn into the stomach. In consequence of this liability to obstruction of the canal, he kept within reach a probang, nearly half an inch in diameter, and which he now used to

dislodge, by forcible propulsion, the arrested pit. Immediately on swallowing the stone, he threw himself horizontally on the ground, and endeavored to eject it, by efforts at vomiting.

Previous to my arrival, he had employed the probang three times, at short intervals, in the abortive and dangerous effort to drive the stone into the stomach. These efforts, as he told me, were forcible, and the second was followed by a jet of blood. Alarmed at the imminently perilous aspect of the case, and unwilling to assume the responsibility of directing any measure, which must, in all probability, aggravate the difficulty, and expedite an untoward result, I despatched a messenger for farther medical aid. But limited by the spur of extreme agony, and in opposition to my advice, the patient repeated the use of the probang—each time, evidently, with more hopeless certainty, impacting the stone in the substance of the œsophagus, until at last it suddenly retreated, and the patient exclaimed, "I believe it is down."

Not then fully appreciating the extreme minuteness of the calibre at the site of the arrested substance, I was willing to entertain a hope that it had gone in the right direction; forlorn, indeed, as no abatement of the pain followed. The site of the stone, as impacted, was the mens of pain, which radiated upwards to the shoulders, and to the right side. Patient desired to drink, and was permitted to swallow a little cold water, which, he said, "felt as if it went into the stomach." There was a troublesome accumulation of mucus in the throat, which he lacked strength to bring up, and which aggravated the sense of suffocation. Pulse, 60 per minute, and compressible; extremities cold, with copious perspiration from the neck and face. Administered a weak mixture of brandy and water, followed by a small dose of morphine. Directed a sinapism to the epigastrium. In a short time pulse rose to 100, then 120—a rate maintained all night, when it reached 140. He was allowed (perhaps injudiciously,) to drink at intervals, till within a few hours prior to dissolution.

Friday Morning.—A tumefaction began to appear above the right clavicle, which constantly increased, and distinctly emphysematous. Respiration laborious, performed nearly exclusively by the diaphragm. In my absence, the attendants administered a dose of oil. Hands obstinately cold, perspiration profuse and clammy, hippocratic countenance. During the night I had prognosed inevitable death. To this consummation all the symptoms steadily pointed, until about five o'clock Friday afternoon, when the patient revived a little, and in a husky, inarticulate voice, expressed himself easier. Directed an enema of salts and senna. No perceptible alteration ensued until about 12 o'clock, when he sunk into insensibility, and expired at sunrise, 23 hours after the accident.

Post Mortem.—The lungs were found adherent, in many places, to the walls of the chest, and we detected a small quantity of pus issuing from some of the bronchial ramifications. The right lobe of the liver was considerably enlarged, and slightly altered in texture. The stomach was empty, and void of the minutest trace of disease. We removed more than a quart of reddish fluid from the cavity of the chest, which had unquestionably leaked through an aperture in the œsophagus, slight hemorrhage from the wound having given it a fleshy tinge

Upon a little manipulation, we discovered the unnatural orifice through which the stone had been propelled, distant nearly three inches from the cardiac orifice. The stone itself, having perforated the right wall of the tube, rested obliquely in the cellular investive of the œsophagus, two inches below the point of rupture. We noticed considerable sanguineous infiltration along the anormal track of the foreign body. We did not succeed in detecting any rupture of the mediastinum or lungs, which might not have been occasioned by the manœuvre of manipulation. Intestines excessively tympanitic. The entire calibre of the œsophagus was exceedingly small, and at the narrowest point not larger than a pipe-stem.

Could this man have been saved? is the first question that arises on a review of the whole case. In my opinion, a negative answer is almost inevitable. Had the patient refrained from all effort to force the foreign body downwards—itself must have occluded the canal, so as to impede the passage of medicine, and every effort at deglutition would obviously more obstinately impact in its anormal site. Evidently, emesis was the only rational mode that could have been suggested for accomplishing its removal. But even, in the event of its ejection, the delicate œsophageal membrane might have sustained fatal lesion. But after a third introduction of the probang, and the exercise of propulsive force, equivalent, as the patient thought, to several pounds, (though this is hardly probable,) what but the most desperate heroism could have expected to compass the danger, and disengage the stone by extraction? Indeed, the whole tube was quite too narrow to admit of but an imperfect and embarrassed use of forceps. The point of impaction was considerably remote. In efforts at extraction increased laceration would be all but inevitable. Seizure would have been extremely difficult, from the peculiar shape and surface of the body. The stone of this kind of plum is usually flat, and its edges correspondingly sharp. There are other suggestions connected with the subject, but I forbear. Emphysema, I may add, is commonly attributed to rupture of the lungs. But I do not think there was any pulmonary lesion in this instance. M. Louis avers that it may happen, independently of any rupture of the air cells. I believe there are recorded, numerous instances of what has been termed spontaneous emphysema. In the present case, there is indoubted reason to suppose the mediastinum was wounded. I will simply append a paragraph from Dorsey's Cooper

"We may infer that from a mere rupture of a few of the bronchial cells, occasioned by irregular action of the lungs, or some other internal cause, a spontaneous diffusion of air may take place in the cellular texture of the body. Such examples are dependent on the same cause as the emphysema, from injury of the lungs; only the rupture of the bronchial cells in the former cases is less obvious."

Yours, truly,

C. COLEGROVE "

SARDINIA, September 18, 1849.

Buffalo Medical Journal.

VI.—CORRESPONDENTS AND COMMUNICATIONS.

WE propose to embrace under this head for the future, any interesting fact or original suggestion, that may be contained in communications sent to us for publication. Some of our correspondents send us articles for the Journal, either carelessly arranged or the facts are imperfectly detailed, or many of them may be uninteresting to the profession; yet some of these papers contain useful hints or valuable instruction.

We propose to extract from these papers such facts and observations, as we may deem interesting to our readers, omitting those parts not regarded as valuable. *Mercurial salivation, a prophylactic against Asiatic Cholera.* A correspondent writes us from the Parish of Ascension, Louisiana, some curious facts upon premedication in Cholera. He states that in the month of June, during the prevalence of this disease in the above parish, his attention was directed to the influence of salivation in guarding against an attack of cholera. During his attendance on a large plantation, (over 200 slaves,) where the disease was raging fearfully, he found several slaves, confined in the plantation-hospital had been "*intemperately salivated*" *previously* for some chronic intestinal affection; and although every negro on the place complained, more or less, of "bowel complaint," and nearly 70 out of the 200 died; yet those who were fully under the influence of mercurial salivation, escaped the disease—"not one being attacked." Our correspondent continues: "My plan is, as soon as cholera appears among the people, to salivate them, and keep them under the gentle influence of the medicine as long as the disease continues. This time, he says, does not extend beyond two or three weeks." In this city, it did not exhaust itself for six or seven months. From some inscrutable cause, adds this physician, our negroes seem peculiarly susceptible to the influence of the choleraic virus; and the slaves almost invariably suffered seriously from the disease on our plantations, whilst the whites uniformly escape. This difference cannot be ascribed exclusively, he says, to difference of habits and modes of living.—Ed.

Cataplasms.

As a means of soothing pain and allaying local irritation, cataplasms, composed of various substances, have long been used, both in and out of the profession. Applied when warm and soft, they act as a kind of local bath, and favor cutaneous transpiration and reduce excitement. Our object in alluding to this simple, but often important means in the treatment of disease, is to call the attention of the *practitioner* to the *onion-poultice*, as an excellent application over the epigastrium, in cases of obstinate bilious vomiting, often witnessed in some of our autumnal fevers, and in the irritable stomach of the dissipated. A correspondent, writing to us from Alabama, states that a case of obstinate *bilious vomiting* of several days' continuance, in despite of all the remedies used, promptly yielded to "*a poultice made of raw onions*, large enough to cover the entire epigastric region; at the same time he

gave internally some of the juice of the vegetable." He adds, "in the course of a few hours, it acted like a charm—it arrested the nausea and vomiting, which had been so obstinate and distressing to the patient for several days." He concludes by stating that the same means had been equally successful in his hands in several similar cases. We give this on the authority of Dr. Mayberry, of Alabama.—ED

THE MEDICAL AND SURGICAL JOURNAL.

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Health of the City, &c.—With the progress of improvement, human health advances and the sum total of life is prolonged. The experience of every day's observation gives strength to this proposition; although it must be admitted, that a few individuals among the uncivilized and barbarian races, attain a riper old age than any among the refined and polished nations of the earth. We might mention the aborigines of this country and also the African race, as instances of the former. The happy effects of improvement upon the health and happiness of a people—of a community, are clearly exemplified in our own city. By filling up or building upon vacant lots,—by extending, grading, paving and draining the streets and lots, immense good accrues to public health, and many active sources of disease are either dried up, or destroyed. The plague that formerly depopulated the city of London, fled before the onward march of improvement; it has established its head-quarters in the cities of Egypt—the cities of the East, where the hand of industry is bound with fetters, or paralyzed for want of profitable employment. Consult some of our oldest residents in regard to the health of New Orleans, as far back as 1815 and '20; they are unanimous in the opinion that we are much less afflicted with severe and fatal disease now than at the periods to which we allude. At that time, the population was thin; now it is dense and our houses are crowded;—then few streets were paved, and draining was entirely neglected; now, these useful improvements meet the eye in every direction and our draining machines labor both night and day. Is it then remarkable that this city should now be exempt from much of the sickness and many of the diseases to which it was subject twenty-five or forty years back? When the limits of the city proper shall include well-paved streets, so constructed as to carry off the water with the least delay—when all the low lands, vacant lots, basins and reservoirs for the reception and retention of foul and corrupt waters, shall have been filled up and brought to a level with the surrounding surface, then will cease "Othello's occupation." The yellow fever, which has prevailed to a very limited extent, in this city since the latter part of August, was confined almost exclusively to the laboring and lower class of the community.

Few persons, in the upper walks of life, or who paid any attention to hygienic precautions, had an attack of the disease: it selected for its victims the poor and exposed part of our population, whilst the well-fed and better class of the community, almost entirely escaped.—Will the difference in the habits and modes of living, etc., account for this seeming partiality—this preference of the disease for a particular class of persons? We believe it will go far to solve the question, and this fact induces us to believe that if the social and moral condition of this

portion of our population could be ameliorated and raised to a level with the better class of our citizens, the yellow fever would seldom visit our city. If this deduction be correct, it behooves us to employ every means in our power to effect a result so desirable. This is a *project*, which devolves upon the philanthropist, as well as the physician. The mortality at the Charity Hospital, among those attacked with the disease, was very great, and hemorrhages, with black-vomit, characterized the latter stages of the fever, in a number of cases. A large portion of those who were admitted into the hospital, entered it the third, fourth, fifth, and in some instances, as late as the sixth day of the fever,—or rather just anterior to death. All treatment, in such cases proved nugatory, and the medical attendant, however skilful, could but look on,—mark the ravages of the disease, and sign the mortuary certificate. Such cases, on the contrary, as entered the hospital in the early stages of the disease, in the first 24 or 48 hours of the attack, were generally quite manageable and yielded promptly to the usual treatment. In fact, from every source, we learn that the disease assumed a mild form. Before closing this article, we shall subjoin the list of deaths from the disease during the last two months; but we have no means of ascertaining the number attacked, and consequently can not give the ratio of deaths to the number of cases. The *quinine*, or we shall call it, the *abortive* treatment, was generally adopted, and proved quite successful. The cases met with in private practice were few and scattering and such were generally curable, because advice was sought in the early stages of the disease.

No facts have been brought to our knowledge, which could encourage the idea of importation, notwithstanding Yellow Fever has prevailed to a great extent during the summer at Havana, and commerce between the two cities has been uninterrupted. Those who have been engaged in this trade are usually, fully acclimated. We also learn that Vera Cruz suffered much less this season than usually, due, doubtless, to the improvements and sound suggestions obtained from the *Americans*, during their occupation of that city. This, if true, is an interesting fact, and may lead ultimately to the entire expulsion of the disease from that ill-fated town.

We continue our weekly reports, which will embrace the deaths from yellow fever, cholera and the total from all diseases, for the last nine weeks:

Weeks.						<i>Yellow Fever. Cholera. Total.</i>					
Deaths for the week ending Aug. 25th,						"	2	"	1	"	114
"	"	"	"	"	Sept. 1st.	"	6	"	0	"	80
"	"	"	"	"	" 8th,	"	16	"	0	"	109
"	"	"	"	"	" 15th,	"	26	"	1	"	137
"	"	"	"	"	" 22d,	"	57	"	0	"	158
"	"	"	"	"	" 29th,	"	89	"	0	"	201
"	"	"	"	"	Oct. 6th,	"	121	"	3	"	222
"	"	"	"	"	" 13th,	"	109	"	1	"	205
"	"	"	"	"	" 20th,	"	91	"	0	"	191
Total,						-	-	-	-	-	-
							520		6		1417

Thus, for the nine weeks ending October the 20th, 1849, the total of deaths from every variety of disease reached 1417, and of this number 520 died of yellow fever, and 6 of Asiatic cholera. Up to the date of our last publication, the deaths from yellow fever numbered only 9 for this season; and this figure added to the five hundred and twenty, makes the total of deaths from yellow fever up to the 20th of October, 529,—a large proportion of which occurred in the Charity Hospital. Had the deaths in private practice reached the above figures, it might have been said with propriety, that the disease was epidemic in the city. We must confess that the *material* for an epidemic has been most abundant in our city for the last four or five weeks—as strangers and unacclimated persons have been flocking to our shores, in great numbers; yet few, as yet, have had any good reason, we are pleased to believe, to repent such temerity, as scarcely a single individual among hundreds of the respectable portion of this class of persons, have had an attack of the disease. The fever still prevails in the Charity Hospital, and the deaths from that disease swell the weekly list much beyond its usual figures in healthy seasons. It is, however, gradually declining and now attracts but little attention,—excites no alarm. It has been seen that cholera still lingers, so to speak, in the lap of yellow fever, reluctant to abandon this stronghold—this, her first resting place, when she traversed the Atlantic in December last. The few sporadic cases already recorded, were well marked cases—presented all the shocking features of that formidable disease, and ended in death in a few hours. About the middle of October, the ship “Cromwell,” arrived at this port from Havre, with a large number of German and French immigrants on board; during the voyage, fourteen of the passengers perished with cholera; the last death from this disease, took place near the mouth of the Mississippi. As far as could be ascertained, none of the passengers were attacked with the disease after their arrival in this city. On the 22d of October, the ship “Berlin,” from Liverpool, with over two hundred Scotch and English immigrants, reached our Levee; on the passage, forty-four died of cholera. At both the ports from whence these vessels sailed, some cholera existed; yet all the immigrants were examined by a physician just before the sailing of these ships, and pronounced quite healthy.

The Berlin had been at sea ten days, in latitude longitude before the first case occurred. This was on the 15th of September, and two or three perished daily until the 6th of October, the vessel being in latitude 40° 42' longitude, 25° 53'; when the last death took place. It therefore raged on the ship about twenty days, causing a most fearful mortality; others were attacked but recovered, and some of these were found laboring under the debilitating effects of the disease, when the vessel arrived. The ship was ordered opposite the *Point* in the middle of the river, where she remained until thoroughly cleansed—the berths thrown overboard—and the between-decks fumigated and otherwise disinfected. The captain, after the breaking out of the cholera on board, made free use of Sir W. Burnett's disinfecting fluid, but with what virtue, the above deaths must testify. Not a case of sickness, as far as we could learn, occurred among the

passengers, either coming up the river, or after they landed at our Levee. Many left immediately in steamboats for the West, via St. Louis. The cholera did not spread from either of these two ships—the Cromwell and Berlin. The future may, however, modify this opinion. We close by stating that the city has been remarkably healthy during the summer and fall.

TO THE READERS OF THE JOURNAL.

The great length to which some of the articles in the *first*, or *original* department of the Journal has been extended, rendered it impossible to insert several valuable papers, due the present number. We ask, therefore, the kind indulgence of some of our correspondents, and beg to assure them, that justice, though tardy, shall be done them. Lest the attentive reader may charge Dr. W. P. Hort, in his able and elaborate article on "Cholera," with plagiarism, it is proper to remark that the manuscript of that paper was finished and in our hands, some time antecedent to the publication of our September number. The identity of ideas and the expression of opinions contained in that number of the Journal, in certain articles on cholera, must be regarded as mutually corroborative of the views, entertained by the respective writers on the subject of that scourge. This statement is, we feel, due Dr. Hort, who is as independent in the expression of his opinions, as he is original in their conception.

Since writing the above, Dr. Hort has furnished us the following note, which goes to corroborate some of his views, when speaking of the cause of cholera, in his article, to which we have already alluded :

Cause of Cholera.—The London Morning Chronicle attaches great importance to a microscopical discovery of Dr. Brittan, lecturer on anatomy and physiology, in the Bristol Medical School. In a series of investigations, undertaken in conjunction with Mr. J. G. Swayne, he has observed the constant occurrence of certain peculiar bodies, hitherto undescribed, as characteristic constituents of cholera evacuations, and by a further series of experiments he has succeeded in demonstrating the existence of similar bodies in the atmosphere of districts infected with the cholera. These discoveries have been submitted to the most eminent microscopical pathologists, and are considered by them very important.

Mr. Brittan does not broach any theory as to the nature or mode of operation of these microscopical bodies, but the writer in the Morning Chronicle considers them as *fungoid* plants, the *sporules* of which, floating in the atmosphere or water of the cholera districts, are taken into the alimentary canal, where they vegetate more or less according to the conditions they meet with. It is a little remarkable that this theory corresponds very nearly with one previously broached in this country by Dr. Cowdell.

HARRISON ON YELLOW FEVER.

It is proposed to re-publish, under the auspices of the Physico-medical Society, the "remarks on the nature, causes, pathology and treatment of yellow fever" by John Harrison. This brochure is regarded as

among the most complete and valuable of the writings of the late Professor. The object to be effected in giving this form to the remarks, &c., is to present in a more permanent character, and in a more accessible manner, this invaluable treatise on a question of great importance to our community, and to make it subservient, at the same moment, of the purpose of aiding the the family of the deceased. Dr. Harrison, perhaps more than any one member of the Faculty, has contributed, by a careful and lucid investigation of the causes of this dreaded malady, to place it in its proper relations to the true principles of a system of Public Health, which should have paramount claims on the attention and respect of our City authorities. In the discussion of the possible and probable influences which may originate the malady, great emphasis is laid on actual local circumstances, which are known to vitiate the atmosphere, and to aid and originate morbid actions in the animal economy. As there are removable nuisances, such as an enlightened community properly guided by an active and intelligent sanatory commission, should not tolerate for one moment, we have the right, until disproved by actual experiment, to claim as the fair and proper origin of this destructive pest, the sources indicated by the late Professor; and to demand that proper respect be held for the suggestions thrown together in so careful and able manner by the constituted authorities of the city. This is a matter of great public importance. It affects every condition and interest in the community. In this commercial mart, so rapidly advancing to a position of first rate importance, those who risk life and property here, have a right to demand that every thing should be done, which offers a reasonable prospect of abating abundant local nuisances around us and thus riding us of accessories, and we believe essentials to the origin and spread of our Epidemic Fever.

The Physico-medical Society in re-publishing this admirable little treatise, is offering to the public, to every man and woman of our society, to all pursuits, interests and professions, useful hints, involving cardinal principles of a plan of Public Health, in which all have a deep and lasting stake in seeing verified by results. The bare consideration of the advantages likely to ensue in our efforts to avoid disease, should of itself carry commendation to this treatise. It has become now the highest duty of the profession in all enlightened states, to give a philosophic exposition of hygienic laws, and to substantiate their value in the improved health, comfort and happiness of social communities. Less confined to purely technical duties, the profession is aiming at higher ones of a wider public usefulness and developing resources of a civilization and humanity highly honorable and characteristic of its advanced condition. Conspicuous among this class, was the late Professor Harrison, and it is well known to the writer of this, that he intended his treatise on Yellow Fever, its causes, &c., as the first of a series of articles, which he meditated writing so as to bring forcibly to bear on public notice, the necessity of applying hygienic laws to improve the health, comfort and prosperity of our city. How greatly the community have suffered by his premature death, it is only necessary to read and examine his able analysis of the acknowledged influences, which are steadily in operation in inducing those fatal scourges, which annually rob us of life, health

and wealth, to an incalculable extent. Should this re-publication meet with encouragement, it is proposed by the society to continue the republication of the writings of the lamented professor, all of which have a fixed and permanent value in their relations to Medical Literature. An appeal to this community in behalf of these re-prints, is almost superfluous, as the doctor was so favorably known to it for his ability, integrity and public spirit. We feel, therefore, as if we are doing a public benefit in giving to this community, the opportunity of a re-consideration of what may and can be done toward an improved system of hygiene, by putting within reach of every good citizen, a knowledge of the sources from which spring our greatest let and hindrance as a growing mart of trade, and of the means of their abatement. With this consciousness, the society rests its hopes of seeing this matter, so ably examined in the promised treatise, attract its due weight and attention. To all, we say, read !

A. F. A.

Anæsthesia in Midwifery, with Cases. By JOHN T. McLEAN,
Interne of Charity Hospital.

The production of anæsthesia, in the arts of surgery and obstetrics, is an achievement of our own times. Here, in our own country, it took its rise, and from us it has gone forth over the world, the best of all boons ever offered to the suffering and afflicted of our race. Scarce three years have passed since its first discovery, and yet wherever the art of surgery is known and practised, its use has been adopted.

Through its agency, it has been found that surgeons may operate, and patients may submit to these operations, even when they are of a very serious and difficult, and, consequently, prolonged nature, without the necessity of pain. The agonizing shrieks and the excruciating tortures that were wont to follow the surgeon's knife, have given place to sweet and placid sleep ; and the operating table is now rather a place of repose than an instrument of torture. Thus, the sad and revolting exhibitions, formerly attendant upon severe surgical operations, may be no longer witnessed, and yet these operations are performed as well and as perfectly as before.

It has been found, also, that the use of these agents has greatly decreased the mortality attendant upon severe surgical operations ; not only by annulling the pain, which is in itself depressing and destructive, but, also, by saving the patient from the shock of the operation and its too frequently fatal consequences. Hence, their speedy and general adoption. Objections were raised, for a time, against their use ; the objectors urging reasons and arguments as untenable as they were inhuman and unchristian—but they have ceased, and now, the use of these agents in operative surgery meets with universal favor.*

Not so the use of these same agents in midwifery. Anæsthesia was

* Not quite.—Ed

first introduced in obstetric practice by Professor Simpson of the University of Edinburgh, on the 19th of January, 1847. The case required the interference of art to complete the labor, and the sulphuric ether was administered, more with a view of deadening the sensibility during the operation required, than of interfering with the true pains of labor. But in the progress of the case, a great fact presented itself to the mind of the distinguished obstetrician—that though the sensibility was gone, the contractions of the womb were not interfered with. Upon the result of this case the whole practice of anæsthesia in midwifery is founded.

Professor Simpson reported the case, and immediately it attracted the attention of the profession, the world over. Eight days after its administration in Edinburgh, a physician in Paris used sulphuric ether in a case of instrumental labor, with the same success. Early in February, its use was introduced in London. Later in this same month it was used in Germany. In this country it was first used on the 7th April, 1847, in the city of Boston. From this time it rapidly came into use throughout Great Britain and Europe as well as in the United States: though with us, its practice has been chiefly confined, I believe, to the northern and Atlantic cities.

But it is not without strenuous opposition that the use of these agents in labor has come to be as extensive as it is. This opposition has arisen mostly from our own and the clerical profession—strange sources, surely, for an opposition to a dispensation so beneficent in its nature as etherization in childbirth. Its opposers say, firstly, that the labor is not so painful as to require it. Those who make this objection must either be ignorant of the character of the pains generally attendant upon labor, or else they lack human hearts and sympathies. *Pain* is not a sufficiently forcible term to express the sensations of the mother during the throes of travail—it should be *agony*. No pains that we are obliged to suffer, not even those of amputation, are more severe or more intense than those occasioned by the passage of the fœtus through the external genital organs of the mother. If, then, humanity demands anæsthesia in capital operations in surgery, the same may be said of it in childbirth.

But again; its opposers say that it is unsafe—and this in the face of a thousand cases, collected by such men as Simpson of Edinburgh and Channing of Boston—in no one of which cases, has the least unfavorable result been traced to either mother or child, from the inhalation of the ether. A moderate estimate would make the number of cases in which etherization has been employed, in Europe and America, to be five thousand: and yet out of this large number the first fatal consequence has yet to be noted. What greater or better test of its entire safety does the most scrupulously careful man need? Our *Materia Medica* contains many other agents which are as dangerous to life as the ether—but who raises a warning voice against their administration? The same intelligence and skill that directs the administration of these potent remedies are only necessary to be exercised in the case of anæsthetic agents, and their safety is put beyond question.

Others pronounce it unscriptural to annul, by human means, the pains

attendant upon labor. With sanctimonious air they tell us that God ordained that pain and the labor of childbirth should be inseparable, and they quote Scripture to prove their assertion. These sticklers for "the divine right" of pain in labor, forget that they seriously compromise the character, and detract from the attributes, of God, by their objection: for if He had ordained that in pain woman should bring forth, it never would have happened, in the dispensations of His providence, that a remedy for this pain should be found, which, when applied, should be equal even to the total abolition of the pain.

The mere fact that these pains can be and are relieved, is evidence sufficient that God would have them relieved. Indeed, we find in God himself the first and great originator of anæsthesia; for, in the beneficent exercise of his omnipotence, he caused "a deep sleep to come upon Adam," when he wished to take from his side the rib from which he formed woman. It is the first curse which conscientious people quote in opposition to anæsthesia in childbirth—"in sorrow thou shalt bring forth children." The authority of the most celebrated Hebrew scholars, among whom Gesenius is numbered, would make the word *toil* or *labor* to denote the physiological action, declared by God to be attendant upon parturition.

If this view of the matter be a proper one, the command of God is not interfered with; for the *toil*, the *labor*, in other words, the *contractions of the womb*, and through sympathy, the contraction of other muscles of the body, go on as usual, and indeed are often increased, when the patient is in the anæsthetic state; while the *pain* only, which is a separate and distinct, and by no means a necessary part of the physiological function in question, is annulled. It is with little reason, then, and with less propriety that the Sacred Writ has been searched for objections to anæsthesia in midwifery, and the late Rev. Dr. Chalmers, so well and widely known as a ripe biblical scholar and profound theological critic, spoke truly when he called these objectors "small theologians," and said "they should not be heeded."

These are the chief objections urged against the use of these agents in childbirth—that it is unnecessary—that it is unsafe—that it is unscriptural: and it is a remarkable fact, that just such objections have been made, at various times in the history of medicine, to the introduction of other practices, which have had for their aim the melioration of the condition of the race, and which have been instrumental in the saving of untold numbers of lives: as, for instance, inoculation, vaccination, and in our own day, the senseless clamor raised against the use of anæsthesia in surgery.

But these objections will be of no more avail in hindering the general use of anæsthetic agents in labor, than they have been in staying the progress of vaccination, or putting an end to the use of these same agents in surgery. Obstetrical etherization is destined to become universal. The most distinguished obstetricians in Europe and America, with a single exception, (Professor Meigs of Philadelphia) have pronounced in its favor. The fact that such men as Simpson, Rigby, Murphy and Dubois in Europe, and Channing, Gilman and Lindsley in America, not only resort to anæsthesia in their own obstetric practice, but also

enthusiastically recommend the same to the profession at large, is an earnest of the sure and speedy coming of a time, when, in the language of the report of the committee on obstetrics, at the late session of the American Medical Association, "an intelligent and conscientious physician shall not ask himself the question whether anæsthetic agents may or may not be safely employed in childbirth, *but whether they can rightfully be withheld.*"

The conclusions arrived at, and the facts clearly established, from the carefully collected statistics of over a thousand cases of painless labors, occurring at points widely separated from each other and in both hemispheres, and in the practice of physicians well calculated to judge accurately of the character of the phenomena occurring, are mainly as follows :

1st.—That anæsthesia in labor, when induced by a skilful and scientific physician, is not attended with the least danger to either mother or child.

2d.—That anæsthetic agents, when administered, abolish the pain attendant upon labor.

3d. —That they not only do not interfere with the proper physiological action of the uterus—its contraction—but oftentimes *increase* that action.

4th.—That in consequence of their administration, other circumstances arise, which are highly favorable to a safe and speedy delivery—namely—an increase of the secretions of the organs concerned in labor, and a greater relaxation and dilatation of the parts than was noticed previous to their use.

5th.—That convalescence is invariably more speedy, when these agents are resorted to, than when the patient is left to suffer the pains of parturition.

Surely there is no lack of authority, or of encouragement, for the use of these agents. Will the members of the medical profession of the South West longer abstain from their use? Will they not seize upon this favorable opportunity, to divert obstetric practice from the meddlesome and too-frequently injurious attentions of ignorant midwives, to the hands of enlightened and educated men? or will they yet be indifferent witnesses of the most intense agony that can be endured, when, as by the waving of a magic wand, this suffering may be averted?

The following cases, among many others, occurred in the obstetric ward of the Charity Hospital in this city. The notes in each were made while the occurrences were fresh in my memory. It is the first series of cases, I believe, in which etherization has been resorted to in this city.

Case 1st.—Irishwoman—age 28—primipara—Taken in labor at seven P. M.—slight pains through the night. First saw patient at ten A. M. of next day. Os uteri slightly dilated with the bag of waters protruding. One P. M. Membranes ruptured—Os the size of a half dollar. 4 P. M. Os dilated to the size of a dollar—head presenting—pains becoming more frequent and more forcible—patient suffering much at each pain. Decided to put her under the influence of chloroform. Administered a small quantity, not sufficient to completely deaden sensibility,

but enough to produce a decided anæsthetic effect. Contractions not less frequent than previous to its use, but less forcible—secretions of the vagina profuse. This partial anæsthesia was maintained for four hours, the inhalation of the chloroform being intermitted between the paroxysms of pain. At 8 p.m. the head being engaged in the lower strait of the pelvis, complete insensibility was produced, without any apparent diminution in the force or frequency of the contractions. After a few very severe and rapidly recurring pains, during which the patient gave no evidence of suffering, a large male child was born, the mother at the time being asleep. The loud crying of the child was the first intimation the mother had of a safe and harmless delivery. Placenta immediately delivered without trouble—Hemorrhage but slight. The mother expressed great gratitude for the relief from pain attending the administration of the chloroform. The convalescence was rapid and in eight days mother and child were discharged—both well. Amount of chloroform used, half an ounce.

Case 2.—Irishwoman, age 20, primipara, taken in labor at midnight. Saw patient at ten a. m., of next day. On examination, I found the os uteri dilated to the size of a quarter of a dollar—membranes ruptured—pains occurring every half hour. One p. m., os dilating very slowly—pains no more frequent. Four p. m., pains occurring every ten minutes, and patient crying for chloroform. Os dilated nearly to the size of a dollar—head presenting—first position. Administered the chloroform in sufficient quantity to produce complete anæsthesia. The pulse fell slightly after its exhibition—the respiration was natural. The contractions were as frequent and the expulsive efforts quite as great as before the inhalation of the chloroform. The parts rapidly dilated and there was an abundant secretion. In an hour and a half after the first exhibition of the chloroform, the child was born. The patient was unconscious of pain from the moment of the first inhalation until after the birth of the child. The contractions of the womb, especially those occurring during the passage of the head through the os externum, were very powerful, and the whole body seemed to sympathize with the uterus—but no sound or cry was uttered, for the patient lay in a deep sleep. After I had delivered the placenta, she was awakened, and her attention directed to the cries of her child. She insisted that I was deceiving her, and said her own child was not yet born, and not until she had seen the child and became aware of her own condition, would she believe that she had been safely and unconsciously delivered. When she became aware of it she wept tears of joy over her good fortune. In this case $\frac{1}{31}$ of chloroform was used. The mother rapidly convalesced—no bad symptom, either in mother or child, following the use of the chloroform. In ten days both were discharged, well.

Case 3.—Irishwoman, age thirty, primipara, taken in labor at six a. m. Saw patient first at noon. Pains not frequent or forcible—os beginning to dilate—head presenting. Five p. m., os dilated some and membranes ruptured—first position of head. Nine p. m., found the mouth of the womb dilated to the size of a dollar, and pains frequent and forcible. Administered chloroform. The patient remained unde

its influence three hours, when at midnight a fine boy was born, the mother at the time, being totally unconscious of its birth. Patient anæsthesia only was maintained during the first hour after the exhibition of the chloroform, but for the remaining two hours, the patient was completely under its influence. There was no perceptible change in the respiration, and but a slight diminution of pulse during all the three hours in which the patient lay unconscious. There was little hemorrhage. $\frac{3}{4}$ ss of chloroform used. The convalescence was rapid, and mother and child were discharged in twelve days from time of confinement.

Case 4.—Irishwoman, age twenty-two, second child, taken in labor during night. Saw patient first at ten A. M. An examination showed that the labor had progressed but slightly. Two A. M., membranes ruptured and os tincæ the size of a half dollar—head presenting—pains occurring every twenty minutes—not very forcible. Half past four P. M., patient put under the influence of chloroform—the dilation now being the size of a dollar—the pains more rapid and the woman suffering intensely at each recurrence of pain. The effect of the chloroform in this case was greatly to increase the frequency and the power of the contractions, as well as the secretions of the parts. The pains became almost continuous. The second stage of the labor was very short, for, in half an hour after the administration of the chloroform, the child was born—the mother, at the time, being insensible to pain, yet conscious of the birth of the child. There was not much hemorrhage. The after pains were more severe than in the preceding cases. $\frac{3}{4}$ ss of chloroform used. Nothing untoward occurred during convalescence, and in ten days mother and child were discharged, well.

Case 5.—Irishwoman, age twenty-one, primipara. Patient had slight pains during day and evening—these becoming more severe, I was called at eleven P. M., to see her. I found the os dilated to the size of a quarter of a dollar—membranes not ruptured—head presenting. At half an hour after midnight, the labor had progressed well—the membranes were ruptured—the dilatation was larger than a dollar, and the pains were frequent and forcible. At this stage of the labor, chloroform was administered. The parts immediately relaxed and became abundantly lubricated, and the progress of the labor was rapid. In an hour from its first administration, a lusty boy was born, the parent in this instance, also, being conscious of its birth, yet declaring that she felt no pain. The heart's action was slightly diminished—respiration not affected. $\frac{3}{4}$ i. of chloroform used. Convalescence complete in ten days, and mother and child discharged.

Case 6.—Irishwoman, unmarried, age twenty, primipara. First felt the pains of labor at two P. M. Admitted to the obstetrical ward of the Hospital, at nine P. M. Saw patient immediately, and on examination found the labor somewhat advanced—the os being dilated to the size of a quarter of a dollar—the pains occurring every ten minutes and with some force. At half past nine P. M., the os had dilated to the size of a dollar—the bag of waters large and protruding. I now put the patient under the influence of chloroform—ruptured the membranes—found the presentation to be that of the head in its first position,

The labor progressed rapidly, the patient manifesting no sign of feeling until eleven o'clock, when the child was born, the mother being in a profound sleep at the time of its birth, and remaining so until after the delivery of the after-birth. On waking the mother she could not be persuaded that her child was born, and was only convinced when she heard its cry and saw its tiny form. Pulse full and natural before anæsthesia was produced—not materially diminished by the inhalation of the chloroform. Respiration easy and natural. ʒiiss of chloroform used. In four days after the birth of the child, this patient said she and the child were well, and insisted on a discharge, which was given her. She walked away from the hospital.

Case 7.—Irishwoman, age twenty-nine years, seventh child, taken in labor at three P. M. Made first examination at six P. M., found no dilatation. Eight P. M., os dilated a little—head presenting. Ten P. M., dilatation the size of a half dollar—membranes protruding—not yet ruptured. Patient put under the influence of chloroform. Its effect was maintained until midnight when a large girl was born. The mother was not aware of its birth, nor of the delivery of the placenta. She was bandaged and the child cared for before she became aware of its existence. Amount of chloroform used ʒii. The pains were increased in number and in force—the dilatation was rapid and the secretion copious, after the administration of the chloroform. Mother and child did well, and in ten days were discharged.

Case 8.—Instrumental labor, German woman, age twenty-six, primipara, taken in labor early in the morning. First saw patient at ten A. M.—os uteri turned toward promontory of sacrum, and not felt on examination. Twelve M., os not yet distinguishable by the touch. Administered chloroform—it had the effect to dilate the os slightly and bring it within reach of the finger. Omitted the further use of chloroform. Two P. M., os dilated to the size of a dime, and in a line with the axis of the superior strait of the pelvis. Three P. M., os dilated a very little more. Patient suffering so much, I determined to commence the use of chloroform, which soon produced its specific influence. The labor went on rapidly and well until the head became engaged in the inferior strait. From this point, its advance was hindered by the small size of the transverse diameter of the lower strait. Strong expulsive efforts of the womb during two hours, being unequal to the overcoming of the obstacle, I determined to assist nature and deliver with the forceps. They were introduced and locked without trouble, and with the recurring pain the head was delivered, the patient being entirely unconscious of the operation. At the next pain, the child, a large boy, was born, the mother being yet asleep. Patient under influence of chloroform three hours. Amount used ʒiii. On the seventh day after delivery mother and child left.

It will be observed that in these cases a preference has always been given to chloroform over the other anæsthetic agents. The article is in constant use in the surgical and obstetrical practice of this Hospital, and is administered on a handkerchief held at a short distance from the mouth and nose, so as to admit of a due admixture of atmospheric air with the vapor.

CHARITY HOSPITAL, New Orleans, October, 1849.

MAISON DE SANTE—CANAL STREET.

Surgical Cases and Operative Surgery.

The following list embraces an abstract of the more important surgical operations performed by Warren Stone, M. D., assisted by F. D. McIlhenny, M. D., at the Maison De Sante, from the 1st Aug., 1849, up to 15th Oct., 1849.

Case 1st. Slave man, called Peter, admitted on the 24th Aug., with *necrosis of the head of the radius*, complicated with necrosis of the metacarpal bone of the thumb. Four days after admission, Dr. Stone cut down upon the diseased bone, and removed a *sequestrum* of a large size—of an irregular shape, and of a spongy structure. The wound healed kindly and the disease seems to be entirely removed.

Case 2d. E. Morris, white, aged 25 years, admitted Sept. 12th, 1849, with a compound comminuted fracture of the right leg. The leg had been amputated by a surgeon in Kentucky, before he reached the Maison De Sante. The flap being too short, the stump did not heal, and the bone was also diseased; Dr. Stone again amputated, but the patient died on the 8th day after the operation, from secondary hemorrhage, the arteries doubtless being diseased.

Case 3d. Slave girl, aged about 15 years, admitted on the 16th Sept., with a large tumor on the left jaw, producing great deformity and inconvenience. On the 18th Sept., Dr. Stone removed the tumor, the girl being brought under the influence of chloroform.

An incision was carried from the corner of the mouth, back to the angle of the jaw, laying bare the bone. The flap was then dissected down, the tumor exposed, when with Hay's saw he divided the bone at the symphysis, and with the chain-saw the bone was again divided, just anterior to the angle. The entire ramus, with the tumor was removed, the girl, during the entire operation, (about 20 minutes), being utterly insensible to pain. The wound was dressed, after casting a ligature about the facial artery of that side, and the patient gradually recovered her consciousness. The tumor is of an irregular cuboidal figure, weighing over half a pound—of a fibro-cartilaginous structure, and growing from the center of the maxilla. This patient was discharged on the first of October, being perfectly well and relieved of the previous deformity. The tumor was non-malignant, and may not return.

Case 4th. Slave man, called Thomas, aged about 22 years, quite robust, was admitted on the 14th Sept., 1849, with a compound fracture of the right arm, attended with dreadful laceration of the muscles and blood-vessels. The accident happened when at sea—and in about 72 hours after receiving the injury, he reached the Maison De Sante. A temporary bandage had been applied about the arm to stay hemorrhage. Its tightness had interrupted the circulation through the limb, and gangrene followed. The arm was amputated on the 4th day after the injury had been inflicted, about two inches below the head of the humerus. Secondary hemorrhage supervened, on the 5th day after the operation, and the patient expired from loss of blood.

Case 5th. A white man, J. D——, aged 30 years, carpenter, whilst

using an axe, made a mislick and laid open his foot. The blade of the axe entered between the great and adjoining toe, dividing the parts to a considerable extent above the division of the toes. Attempts had been made, but with partial success to stay the hemorrhage which followed. On the 28th of Sept., 1849, three or four days after the accident, he was admitted into the Infirmary, much reduced from loss of blood. On the same day, Dr. Stone cut down and ligated, the anterior and then the posterior, tibial arteries. The hemorrhage instantly ceased; but on the 9th day after the application of the ligatures, secondary hemorrhage came on; but the free use of dry lint and compression arrested the bleeding, since which time, the patient has been doing well, and will soon be discharged.

Case 6th. A small slave boy, about 20 years of age, entered the Infirmary in October, 1849, with *necrosis of the femur*. Some years previously he had been accidentally wounded by the discharge of a gun in the left thigh in the external side, just above the knee-joint. A fistulous opening on a line with the external border of the vastus internus muscle, continued to discharge a filthy sanious fluid. A probe was readily passed some three or four inches along the tract of the fistula; its course was upwards and forwards. After considerable resistance, causing some delay, the boy was brought fully under that truly *magnum donum Dei*, chloroform, when Dr. Stone, assisted by Dr. McIlhenny, proceeded, on the 15th October to remove the diseased portion of bone. An incision was made down to the bone, some ten or twelve inches in length, and carried down, exactly over the fistulous opening, nearly to the upper end of the patella.

Having detached the soft parts from the bone, he, with the aid of a chisel and mallet, resorting occasionally to a small trephine, succeeded in reaching the dead bone, and extracted a small, irregular piece, in which some small shot were imbedded. The wound was dressed with lint &c.

Case 7th. A slave woman, belonging to C. J., of this city, aged about 25 or 30 years—very dark, of short stature, rather obese, in good general health—was admitted into the Maison de Sante in Oct., 1849, with a large tumor on the abdomen. For several years, a tumor apparently as large as a man's fist, had existed, attached to the abdomen, about 2 inches above the umbilicus. It was difficult to decide as to its exact nature and character. Dr. Stone, however, determined on the 15th October, to cut down upon the tumor and put all uncertainty at rest. It was easily ascertained that a portion of the intestines—the transverse colon, had escaped through the preternatural opening, and lay directly beneath, and in contact with the hardened mass. The operation was performed in the following manner: Dr. Stone commenced his incision, (the patient being fully under the influence of chloroform,) near the zygoid cartilage and extended it down to the umbilicus. After cutting through the integuments and a thick layer of adipose tissue, he reached the degenerate mass, laying directly over the protruded intestine. Having dissected up the fatty tumor, he carried the knife horizontally from left to right; and with the first stroke of the knife divided the sack, which enclosed the intestine and was attached to the under surface of

the fibro-adipose mass. The dissection was continued, until it reached the right side, when the pedicle, or that part by which the tumor was connected with the abdomen had been divided; This pedicle, or stem, was doubtless thickened and degenerate peritoneal membrane, as it had acquired a fibrous structure and opposed some resistance to the knife. This being divided and the degenerate structure removed, a sack of peritoneal membrane—*funneled-shaped*, with, of course, a smooth internal surface, and attached above or in front to the abdominal surface of the tumor, and connected by adipose and cellular structure to the circumjacent parts, was brought fully to view, with a fold of intestine doubled upon itself, reposing at the bottom of the sack, or to carry out the comparison. at the mouth or small end of the funnel. The intestine was healthy in appearance and its blood-vessels presented a beautiful and delicate arborization.

By slight manipulation, aided by elevating the lips of the wound and gentle pressure, the protruded intestine was reduced with a gurgling sound. At this stage of the case, it was discovered that the pedicle, which had been divided in the last part of the operation, was the seat of slight hemorrhage; to arrest it, Dr. Stone seized it with a tenaculum, when Dr. McIlhenny cast a small ligature about it, and the bleeding ceased. The hernial opening through which the gut had escaped, was sufficiently large to admit two or three fingers; and it now became a question how the reduction should be maintained. The hernial sack, which had been divided in severing the fatty tumor, had retracted and formed a thick border around the opening in the cavity of the abdomen. By employing three or four tenacula at one and the same time, the mouth of the sack was retracted, and a ligature was passed around and made to embrace and close it completely, thus preventing any further escape of intestine. A broad bandage was cast around the abdomen to support the parts, and the patient transferred to bed.

After waiting about three fourths of an hour, to see if hemorrhage would return, the temporary bandage was removed, and finding the wound in good condition, it was dressed by adhesive strips, lint and a broad belly-bandage, &c. The operation was performed in eighteen minutes' time, during which the patient lay like an infant in a sweet refreshing slumber, and declared that she did not experience the slightest pain, and was totally unconscious of any thing that had happened. The pulse, both during, and for sometime after the operation, remained soft, full, regular, and ranging about sixty-five or seventy the minute.

The mass excised was circular in shape—from three-fourths to an inch through its thickest part, (which was the center,) and about three inches in diameter. It was dense, firm—of a fibrous structure along its outer border; but its structure in the center—or thickest part—was composed chiefly of a condensed adipose substance, which when broken down between the fingers, communicated a greasy feel, and resembled in its appearance, thickened synovial fluid. The border, or fibrous part of the tumor, was of a shining, dense, whitish appearance, and was cut with difficulty.

On the 17th, the third day after the operation, we examined the patient, and found her resting quietly in bed, complaining only of general soreness about the abdomen; occasionally slight shooting pains, with the pulse full, but soft, and ranging at 100; slight heat of skin, and but little alteration in the appearance of the tongue, eye, &c. In the meantime, she had taken a dose of blue mass and, this not acting, an enema had been ordered, which had brought away a small discharge.

19th. Again saw her; pulse 90; skin cooler; less pain and soreness in abdomen; no tympanitis; tongue partially covered with a white coating; little thirst. Wound dressed first time; healed by first intention down to ligatures; at this point free and healthy suppuration established. General condition satisfactory. After this date, the wound healed rapidly; the ligatures were removed and the patient promenaded the wards of the hospital—having been relieved of all uneasiness and inconvenience by the operation.

P. S.—It is proper to remark that Dr. Stone is, in no wise, responsible for the accuracy of the above notes; they were not submitted to his inspection; they were drawn up hastily, and we know, imperfectly. We trust, however, they will be found *essentially* correct, although defective in detail.

Louisiana State Medical Convention and the Physico-medical Society of New Orleans.

We again remind the profession of the call made by the Physico-medical Society of New Orleans for a convention of all the licensed members of the State of Louisiana, to take place in this city on the first Monday in December, 1849. We hope every parish in the State will be fully represented in order that any measure, that may be adopted, shall receive the sanction and support of the great body of the profession. It should be remembered that singly and individually, we can accomplish but little—can carry no useful or important measure before the public; but united and banded together, and animated with a lofty zeal in the cause of "*medical reform*," we can achieve much good for the public and lasting credit for the profession. We invite, then the members of the profession in the State of Louisiana, to attend the contemplated convention; they will be kindly received and every accommodation will be extended to such, as may visit the city.

At a late meeting of the *Physico-medical Society* of this city, the following resolution was adopted:

Resolved.—That the Secretary be requested to call the attention of the physicians of this State, by a notice in the forthcoming number of the *New Orleans Medical and Surgical Journal* to the Medical Convention to be held in this place, the first Monday in December next for the organization of a State Medical Society.

University of Louisiana — Medical Department.—Without seeking to disparage any of the many excellent medical schools scattered throughout our country, we feel called upon to advert in this connection, to the advantages, offered by this city, to the medical student, for acquiring a thorough and practical knowledge of his profession. With a faculty thoroughly and permanently organized—with lecture rooms, spacious enough to accommodate five or six hundred students—with cabinets, furnished with models, drawings, wax preparations, morbid specimens, both wet and dry—with a hospital hard by the college hall, and at all times accessible to the student, and abounding in a great variety of rare and interesting cases of disease, it cannot be denied that New Orleans, with the foregoing advantages, holds out strong inducements to those who aspire to become *practical* physicians. The perfectly independent position which we occupy in relation to the *medical department* of the University of Louisiana, justifies this free and candid expression of opinion of its high claims to the patronage of the southern student. The lectures will commence for the session, 1849-50, on the 12th of November, and continue four months. We see from the circular, published by the University, that the tickets of each professor, have been reduced to fifteen, and the diploma-fee to thirty dollars.

UNITED STATES MARINE HOSPITAL, NEW ORLEANS.

Report of the United States Marine Hospital, for the quarter ending September 30, 1849.—By P. B. McKELVY, M. D., Marine Surgeon, and J. W. BREEDLOVE, Resident Surgeon.

DISEASES ADMITTED:—Anemia, 1; Ascites, 1; Abscess, 4; Bronchitis, 5; Bubo, 2; Cephalalgia, 3; Carbuncle, 1; Contusion, 2; Cholera Morbus, 1; Constipation, 1; Dysentery, acute, 7; Chronic, do., 2; Diarrhœa, 6; General Debility, 4; Deafness, 1; Deliri. Tremens, 1; Fever, Intermittent, 31; do. Malignant, 1; Fever. Remittent, 30; do. Yellow, 13; (From "Chagres," 2;) Fistula in ano, 1; Fracture, 1; Gastro-enterite, 1; Gonorrhœa, 6; Herpes, 1; Hepatitis, Chronic, 1; Icterus, 1; Iritis Syph., 1; Incurable, 1; Incontinence of Urine, 1; Lumbago, 2; Nephritis, 2; Necrosis, 1; Neuralgia, 1; Orchitis, 2; Paralysis, 1; Ptyalism Mer., 1; Phthisis tuberc., 4; Syphilis, 29; Ulcers, 13; Rheumatism, 24; Urethra Strict. of 1; Vertigo, 1; Wounds incised, 1; do. lacerated, 1.

Remaining in the Institution, July 13, 1849, - - - - 61

Admitted, - - - - - 219

Total, - - - - - 280

Discharged, - - - - 189 } 203

Died, - - - - 14 } Remaining Oct. 1, '49, 77

MORTALITY AND ITS CAUSES, *for the Months of August and September, 1849.* Reported by J. V. LOUBERE, Esq., Assistant Clerk, at the Charity Hospital.

DISEASES.		AUG.	SEPT.	DISEASES.		AUG.	SEPT.
Ascites	5	4		Fever Bilious.....	1	0	
Abcess of Liver.....	2			Fever Mesenterica	0	1	
Albuminaria	1	1		Fever Pernicious Intermittent	1	2	
Asthma.....	0	1		Fracture of Ribs.....	1	1	
Bronchitis.....	2	0		Fracture of Skull.....	0	1	
Cholera Asiatic.....	3	2		Gastro-Enteritis.....	1	1	
Cancer of the Stomach.....	1	1		Gastro-Duodenitis.....	1	0	
Cancer of the Scrotum.....	1	0		Gangrene of the lungs.....	2	0	
Compression of the Brain.....	2	2		Gangrene of the foot.....	0	1	
Congestion of the Brain.....	0	3		Hepatitis	0	3	
Concussion of the Brain.....	0	1		Ictus Solis.....	2	0	
Convulsions	0	1		Marasmus ...	1	2	
Dysentery	10	8		Cedema of the lungs.....	1	0	
Diarrhœa	9	16		Phthisis Pulmonalis.....	10	11	
Delirium Tremens.....	4	1		Peritonitis	1	1	
Debility	2	0		Pleuritis.....	1	0	
Enteritis.....	3	1		Pneumonia.....	1	0	
Epilepsy.....	0	3		Phrenitis	0	1	
Fever Yellow.....	10	153		Rheumatism Chronic.....	2	0	
Fever Typhus	10	16		Syphilis	0	2	
Fever Congestive.....	8	4		Tetanus Traumatic	0	1	
Fever Puerperal.....	2	0		Ulcer of leg (Phageden.).....	0	1	
Fever Continued.....	1	0		Variola Confluen.....	3	1	
Fever Irritative.....	1	1					
Fever Remittent.....	4	0		Total.....	111.	249.	

From the 1st of October, 1849, up to the 16th, there have been 208 deaths in the Hospital, of which 168 were from Yellow fever and 2 Asiatic Cholera.

J. V. L.

CHARITY HOSPITAL REPORT.

AUGUST, 1849.

Admissions,	Males,	-	-	-	-	-	1067
"	Females,	-	-	-	-	-	320-1387
Discharges,	Males,	-	-	-	-	-	943
"	Females,	-	-	-	-	-	287-1230
Deaths,	Males,	-	-	-	-	-	92
"	Females,	-	-	-	-	-	19-111

Number of patients remaining on the 1st of September, 913

SEPTEMBER, 1849.

Admissions,	Males	;	-	-	-	-	1438
"	Females,	-	-	-	-	-	372-1810
Discharged;	Males,	-	-	-	-	-	1109
"	Females,	-	-	-	-	-	312-1421
Deaths,	Males,	-	-	-	-	-	211
"	Females,	-	-	-	-	-	38-249

Number of patients remaining on the 1st of October - 1050

On the 1st of October, 1848, the number of patients remaining in the hospital, including the insane department, was only 582. The number for this year shows an increase of 468 over that for 1848.

THE
NEW ORLEANS
MEDICAL AND SURGICAL
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DEVOTED TO MEDICINE
AND THE
COLLATERAL SCIENCES.

EDITED BY
A. HESTER, M. D.

JANUARY, 1850.

"Summum bonum medicinæ, Sanitas."—GALEN.

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1850.

LIST OF PAYMENTS

MADE TO THE N. ORLEANS MEDICAL JOURNAL SINCE
THE PUBLICATION OF LAST NUMBER, TO DATE.

Audler, — to Sept., 1850, \$5 00	Knapp, — to July, '50, 5 00
Alexander, J.T. to Nov. '50, 5 00	Kelly, E. H., to July, '50, 5 00
Arthen, A. B., to " '50, 5 00	Ketchum, G. A. to " '50, 5 00
Amis, S., to July, '50, 5 00	Lewis, P. H., to " '50, 7 50
Atchinson, to " '49, 5 00	Mixon, W. S., to Jan'y, '51, 5 00
Anderson, Ed., to Jan'y, '51, 5 00	McLeod, A., to Sept., '50, 20 00
Batchelder, to July, '49, 5 00	McLeod, M. A., to July, '50, 5 00
Barr, W., to January, '51, 5 00	Magowen, — to July, '50, 5 00
Beck, to January, '50, 5 00	Mordecai, S., to " '50, 5 00
Crawford, J.W., to Sep., '49, 5 00	Nott, J. C., to " '50, 5 00
Callaway, R.S., to July, '50, 5 00	Pollard, G. T., to " '50, 15 00
Crompton, W.J., to Nov. '50, 5 00	Peques, W. A., to Nov. '50, 5 00
Clark, A. F., to " '50, 5 00	Perrin, G. G., to July, '50, 10 00
Clark, James, to July, '50, 10 00	Rushton, — to " '51, 10 00
Chamberlain, C.T., to " '50, 5 00	Stevens, R. M., to May, '50, 5 00
Dearing, W. E., to Nov, '50, 5 00	Strohecker, E.L. to July, '50, 5 00
Edmonson, — to " '50, 5 00	Simms, — to " '50, 5 00
Ewing, S. D., to Jan'y, '50, 10 00	Stone, — to " '50, 5 00
Gilmer, M. L., to July, '49, 5 00	Taunhill, J. S., Nov., '50, 5 00
Harper, H. B., to Jan'y, '50, 5 00	Walker, W. E., to July, '50, 5 00
Herbert, R. W., to May, '50, 5 00	White, R. W., to Aug., '50, 5 00
Hutchinson, A., to Jan. '51, 5 00	Williams, J. S., to Nov. '50, 5 00
Hicklin, November, '49, 5 00	Wiley, Waltur, to Aug., '50, 5 00
Holt, — July, '49, 5 00	Williams, W.G., to July, '50, 5 00
Hamilton, J.C., to Jan'y, '50, 5 00	Wise, J. S., to Nov., '50, 5 00
Hall, — to November, '50, 5 00	

TO READERS AND CORRESPONDENTS.

Our correspondents will please send in their communications for the *March* number of the Journal. We again request them to condense as much as possible. Short and practical papers are preferable to communications extended to a tedious length. Our aim is to be brief and to the point; and to this end we solicit the aid and co-operation of our friends.

We have received communications from Dr. Finch, Texas, and Dr. Coleman, La.

Also, the following Books, Pamphlets, &c. &c.

I.—College of Physicians and Surgeons of the Upper Mississippi, (re-organization of the Rock Island School,) second session, 1849--50, Chicago.

II.—Observations on the spread of Asiatic Cholera, and its communicable nature; by John Evans, M. D., Professor of Obstetrics and Diseases of Women and Children in Rush Medical College—Member of American Medical Association, &c. &c. Chicago, 1849. From the Author.

III.—Contributions to Physiology, By Bennet Dowler, M. D. Corresponding member of the Academy of Natural Sciences, of Philadelphia, dedicated to Samuel A. Cartwright, M. D. New Orleans, 1849. From the Author.

IV.—Summary of the transactions of the College of Physicians of Philadelphia, from May to October, 1849, inclusive. From the Society.

V.—A Treatise on the Diseases of the Bones, by Edward Stanley, F. R. S. President of the Royal College of Surgeons of England, and Surgeon to St. Bartholomew's Hospital. Philadelphia, Lea & Blanchard, 1849.

VI.—Inflammation; its Symptoms, Causes and Treatment, philosophically considered; By J. P. Batcher, M. D. New York, 1849 p. 66. From the Author.

VII.—Address on Free Medical Schools. Introductory to the Session of 1849--50, in the Rush Medical College; By N. S. Davis, M. D. Professor of Physiology and Pathology. (Printed by the Class.) Chicago, 1849.

VIII.—Report of the Proceedings of the Sanitary Committee of the Board of Health, in relation to the Cholera as it prevailed in New York in 1849.

IX.—The Practice of Surgery; embracing Minor Surgery, in the

application of Dressings, &c. &c. &c. By John Hastings, M.D., U. S. N. Fellow of the College of Physicians of Philadelphia, Member of the Philadelphia Medical Society; Lecturer on Surgery, &c. &c., with numerous illustrations. Philadelphia, Lindsey & Blakiston. From the Publishers.

X.—The Three kinds of Cod-Liver Oil ; comparatively considered, with reference to their Chemical and Theraputical properties, By L. J. de Jongh, M. D., of the Hague; Translated from the German, with an Appendix and Cases. *Opinionam Commenta delet dios naturæ judica Confirmat—Ciccro de natura Deorum.* To which is added an article on the subject from “Dunglison on New Remedies. Philadelphia, Lea & Blanchard, 1849.

XI.—Surgical Anatomy ; By Joseph Maclise, Surgeon, with colored plates. Philadelphia, Lea & Blanchard, 1850. Part I. From publishers.

XII.—The present Position of the Medical Profession in Society an Introductory Lecture delivered in the Medical College of Georgia Nov. 5, 1849, By Paul F. Eve, M. D. Professor of Surgery, Editor Southern Medical & Surgical Journal, one of the Vice Presidents of American Medical Association. (Published by the Class.) Augusta, Ga. From the Author.

XIII.—Observations on the size of the Brain in various races and families of Man. By S. G. Morton, M. D. Philad. From the Author.

Our usual Exchanges, both Foreign and domestic, have been duly received.

CONTENTS

OF

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THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

JANUARY, 1850.

Part First.

ORIGINAL COMMUNICATIONS.

I.—*Sensation, and the relation between nervous matter and the objects of impressions.* By the late JOHN HARRISON, M. D., Professor of Physiology in the Medical College of Louisiana. *

WHEN foreign bodies come in contact with our own, or, when one part of the frame touches another, the state of the mind is altered; and this change in the mind is called a sensation. That this effect may occur, certain conditions are essential. That which first deserves our attention, is the progression of those operations which, taken collectively, are called 'Life'; and in this particular, sensation differs from muscular contraction, which may take place many hours after respiration and the action of the heart have ceased.

* Through the kindness of the family and some of the friends of the late distinguished, but now lamented Professor Harrison, we have been so fortunate as to obtain, for publication in the Journal, part of an essay, written by the talented author, and evidently intended for the press. A part of this essay we lay before the readers of the Journal; the balance, constituting two long papers, shall appear in our subsequent numbers. We know not when they were written, but they bear unequivocal proofs of strong reasoning powers and great erudition; they are the production of a philosophical mind, and will be read with melancholy interest by the friends of the author.—Ed.

It is impossible to define sensations, because in all definitions one word is merely exchanged for others which are more familiar, and the meaning of which is supposed to be understood by the mass of mankind. If we wish to convey to others a notion of our own sensations, we must make them experience the same.

Sensations are more or less acute, according to peculiarities of organization and to different conditions of the nervous system. They differ in health and in disease; and this difference is not limited to intensity only; they are frequently unlike in kind—hence we have a division into healthy and morbid sensations. [We confine ourselves, in what immediately follows, to the former.

By a close observation of phenomena, we discover, that in ordinary cases, there are three substances engaged in the production of a sensation. These are, 1st, a body external to the nerve, and which is termed an "object of impression;" 2d, a nerve, which in the higher animals, must be continuous to the spinal marrow, and thence to the encephalon; 3d, a sensorium, where all changes in the nervous matter elsewhere must arrive; and with which the nerve must either directly or indirectly communicate. This spot in the higher animals is the medulla oblongata. It is there that the mind becomes sentient, in consequence of a prior affection of the nerve.

Three requisites to sensation are, however, only strictly true when predicated of animals high in the scale of organization. There are beings, (e. g. the hydra of Trembley,) which give unequivocal evidence of perceiving the impressions of external bodies, but in which no nervous matter, distinct from the other solids, has as yet been discovered; and if we admit any such substance to exist in them, it is from analogy altogether. The sensorium, too, of the inferior animals, is not limited to a particular nervous mass, such as the medulla oblongata; it is diffused more or less throughout the nervous matter.

The production of sensation, then, in the higher animals, is a function requiring for the performance of it, an object of impression, a nerve and sensorium. These three substances are requisite to produce a sensation; but we find from further investigation that sensations are modified, i. e.: external objects affect us with a different feeling as they come in contact with this or that particular part of our body. The structure of these parts is not the same—their respective organizations are unlike; hence, there is a fourth element to be taken into the account, when we examine this function, viz: the tissues in which the nervous matter is finally expanded.

Sensation, like volition, is a generic term, and is used to designate innumerable affections of the sentient organ. This must be apparent if we reflect how many thousand different sensations we experience from the senses of hearing, touch, taste, smell, and sight, particularly from the last; for by it we perceive the forms of bodies, which are infinite. Of course, the sensations which we are capable of receiving through the sense of vision alone, are therefore infinite. Sensation, then, is a generic word, in which certain feelings or affections of the mind are comprehended and classified.

Sensations are agreeable, disagreeable, or indifferent; hence the pleasures and pains derived from the senses. Why certain sensations should create a desire for the continuance of them, and why others should create an aversion, is not to be explained. Pleasure and pain, desire and aversion, are among those elementary or primary facts, which in every investigation we arrive at, but which, in themselves, are not explicable. They are connected, however, to a great degree, not only with our happiness, but safety. Those sensations that are agreeable are conducive to health of body and elasticity of mind. Sensual pain, on the contrary, is always an evil; affecting injuriously body and mind, and may even *accompany* the extinction of life. Such is the truth, if we regard sensual pleasure and pain during their period of existence; but the proposition is far from being true when things are pushed to their consequences. By too great indulgence, sensual pleasure brings about such a change in the nervous system as to give way to pain, which usurps its place; while on the other hand, severe suffering is frequently the forerunner of exquisite enjoyment. In inattention to this lies the error of modern Epicureans.

In commencing this subject, it is absolutely requisite to give a strict definition of terms.

Sensation is what we have defined it to be at the head of the chapter; an affection of the mind occurring in consequence of a change in the nervous substance, produced by an outward object. It is therefore a result.

Sensibility is expressive of the *fitness* or *unfitness* of substances to undergo those changes, the result of which is sensation. We say an animal is a being possessed of sensibility; that a vegetable does not possess sensibility. We say that certain nerves possess sensibility, whilst other nerves (those of motion) do not possess it. As the nervous matter is the only substance in nature connected with the production of a sensation, the word "sensibility" can only be used directly or remotely in reference to that substance. Sensibility, then, is a condition; it is also a physiological term, with which, however, we have nothing to do.

Sensible.—This adjective is sometimes used with regard to outward objects, as when we speak of a sound distinctly sensible; of rays of light that are insensible, etc. It is also applied to the mind as when we say that a drunken man is insensible, etc. In the French language, it is also applied to the nerves; (*nerf sensible*;) but in English the word sensitive or sentient are used for this purpose. In another sense it is applied to the mind when no reference at all is made to sensation; as when we speak of a sensible man, we mean one who has a good judgment.

Sense, as a physiological term, we shall speak of hereafter. It is one of the most ambiguous words in the language—meaning sometimes sensation, at others sensibility, and at others, again, it is to separate kinds of sensation, as sense of sight, hearing, etc. It is also a physiological term, good sense meaning quickness of perception, or soundness of intellect. It is also synonymous with meaning, *Sensitive* and *sentient*

which are equally ambiguous. When we say that the mind is sentient, and speak of the medulla oblongata as the sentient organ, we mean different things, etc., etc.

It is scarcely possible to shun these double meanings of the same word, without adopting a paraphrastic style, which would be infinitely worse. The meaning must then be gathered from the spirit of the writing. We shall, however, avoid ambiguity as much as possible, and shall always use the words "sensation" and "sensibility," as we have defined them—the first as a *result*, the latter as a *condition*.

Objects of Impression.—These are all bodies, as far as we know, in the world without us, and affections of the nervous extremities from internal causes. Hence, the sub-classification of sensations into external and internal. At present we shall speak of the external.

We have said above, that the objects of impression are all bodies in the material world, as far as we know. These qualifying words have been used on this account. Our knowledge of the properties of bodies is entirely derived from impressions made on the senses. Without sensation we could never have known any thing of the substances which surround us. Therefore, our knowledge or ignorance in this respect will mainly depend on the number of senses we possess; and the abolition of any one sense would of necessity abridge our acquaintance with the external world. A great mass of information which we owe to the sense of sight, we could never have gained by the sense of touch, or elsehow. Hence, it is not impossible that there exist bodies in nature not fitted to act upon the nerves, constituted as they now are; and the possibility of this is plainly conceivable when we call to mind, that to a man born blind, the existence of light must remain forever undemonstrated, and all notions of colors unattainable. To one born deaf, there is no sound, and of consequence, no idea of music or articulate language. The magnet, in all changes of place, still continues pointing to the pole. Now, if the electric fluid be one *sui generis*, it is plain, that in the present instance, it may be in contact with us, yet not affect the senses. It affects the magnet, but not us; and we are made aware of its presence, only from its effects on the needle.

Certain objects of impression act only on certain parts of the nervous system; and as if for the purpose of adding to the force of the impression, of concentrating it (as it were) in a focus, apparatuses are added to the general structure. Thus, light affects no other part of the nervous system than the retina; and we have a very beautiful and complex apparatus, constructed on the most abstruse principles of optics, for the purpose of collecting the scattered rays and rendering the image more distinct. So, too, rapid vibrations in the atmosphere make their impression only on the acoustic nerves, and we have here the assistance again of a most intricate instrument. The minute particles of bodies floating in the air, changes the condition of the olfactory nerves, but affect none other. All other substances make their impressions on the nerves of general sensibility; i. e.; on those nerves attached to the posterior column of the spinal marrow.

A distinction of the objects of impression has been made by Dr.

Reid,* into those which affect our senses by contact, and those which operate through a medium. Thus, objects affecting our touch or taste, says he, act immediately on the nervous extremity; but we perceive a rose through the medium of its reflected light and its odorous particles; and we hear a cannon through the medium of a vibrating atmosphere.

This distinction is not founded on truth; for the real objects of impression on the nerves of vision, smell and hearing, are not the rose and the cannon, but the light and odorous particles emitted from the one, and the oscillatory movement in the air, caused by the other. The cases are exactly the same as in the sensations of touch and taste. An object of impression comes in contact with the tissues, and thus affects the nerves. The reason why we refer to the rose and cannon as the cause of the sensations we experience, is to be found in operations of the mind subsequent to sensation, and altogether distinct from it.

Nerves.—The nerves of sensation are, 1st, the olfactory, whose place of origin has not yet been strictly ascertained. The nerves of smell are generally described, as arising by three distinct roots, from the under and posterior part of the anterior lobes of the brain. They do not, perhaps, arise from the corpora striata, as some have supposed; at least, the peculiar function of these bodies cannot be exclusively devoted to that of smell; as they are well developed in the Dolphin and Porpoise,† which have no olfactory nerves. It was the opinion of Gall and Spurzheim, that one of the roots of this nerve came from the posterior corpora quadrigemina, thence running to the corpus geniculatum internum, it was continued onward. This opinion received countenance from comparative anatomy: the testes and the corpora geniculata interna being proportionally larger in carnivorous animals, who have the sense of smell in the greatest perfection. But the continuation of the olfactory nerves to the testes has never been clearly made out by the knife of the anatomist, and we are again met with the same objection that was mentioned above; these tubercles‡ are well developed in the Dolphin and Porpoise, which have no olfactory nerves.

It must not be forgotten, however, that when we speak of the origin and termination of nerves, we are using figurative language. The nerves, speaking properly, have neither origin nor termination—they are connecting links between separate masses of nervous matter; one of which is at the periphery, diffused in the tissues of the organ of sense; and the other the encephalon. We must remember, too, that in spite of all that has been said on the subject, the sensorium of the olfactory nerve is not yet ascertained. Can we believe that it is in the medulla oblongata, and that odors are perceived even after destruction of the olfactory tubercles and ablation of the anterior lobes of the brain, as Magendie and others insist?§ We may readily believe that cutting the fifth pair would destroy the sense of smell, as it does those of hearing and vision; but what are we to think of those cases, in which the subjects, we are told, enjoyed the sense of smell to the last moment of their lives, and yet, in whom, after death, the nerves were

* On the Intellectual Powers, Essay II, chap. iii.

† Cuvier Report on Gall's Anatomy of the Brain.

‡ Ibid. See also Cain's *Traite d' Anatomie Comparée*, traduit par Jourdan, tom. i. p. 99. § *Precis Elem. de Phys.*, p. 59, edition de 1834, Bruxelles.

found completely destroyed.* For our own part, we are sceptical concerning the existence of the sense in the cases referred to, as we are likewise of those cases in which odors were perceived after removal of the anterior lobes of the brain.† The suggestion which has often been made seems to us nearer the truth;—that the effects of Dippel's oil, ammonia, etc., on the fifth pair, were mistaken for affections of the special sense. There are besides cases on record in which disease or absence of the olfactory nerves was accompanied by a total loss of the sense.‡ Let us call upon comparative anatomy to elucidate this question concerning the sensorium of the olfactories. In the lower orders of the vertebrata, the encephalon is composed of a series of double ganglia; which, enumerated from behind forward, are, 1st, the medulla oblongata; 2d, the cerebellum; 3d, the optic tubercles; 4th, the cerebrum or brain proper; and, 5th, the olfactory tubercles. In many fishes, the optic tubercles, and even the olfactory, are larger than the brain itself. But as we ascend in the scale of life, the cerebellum and brain, but more particularly the latter, increase in their proportional magnitude, until, in man, the others become insignificant in comparison. Between the olfactory tubercles and the brain there is a connection by means of nervous matter, as there is between the brain and optic tubercles behind; and, indeed, between all adjacent parts of the nervous system;—no one part being isolated, but each in connection with some other part, and thus forming a continuous whole." These considerations, together with a study of the human brain and olfactory nerves, incline us to think that the proper sensorium of these nerves are their own tubercles; and that those cords of medullary matter described as arising by three distinct roots from the under and posterior part of the anterior lobes of the brain, are but the medium of connection between the olfactory tubercles and the rest of the nervous system; and which, adapted to other parts as the type of organization is modified, we see gradually growing in length, from the lowest orders of the vertebrata, up to man. The necessity and purpose of such a medium will be spoken of hereafter. 2d. The second nerve of sensation is the optic. This nerve arises from the optic tubercles, which in the mammalia have the appearance

* *Precis Elém. de Phys., et Journal de Physiologie*, tom. v.

† That is, after the olfactory tubercles and nerves have been cut away.

‡ Meckel. *Mannuel d'Anat.*, tom. iii., p. 281—note des traducteurs. See also *Revue Méd.* May 1830, case communicated by Caveilhier to the Soc. Anatomique.

§ As in the *Trigla Lyra*, a flying fish; and in the *Murena* Conger or Conger eel. See the plates of

Authors by no means agree on the enumeration of these ganglia—According to Gans there are but four of them. The olfactory or brain proper—the optic—the cerebellum, and the medulla oblongata. The eel, (see his plate) has no less than six well marked. The three first, according to him, are the natural divisions of the first lobe of brain proper—resulting from the disposition of the nervous system to divide into ganglia, wherever there occurs a new vertebra—Desmoulins on the other side makes these remarks: "De la continuité et de la proportionnalité des nerfs olfactifs, avec la paire des lobes, qui précède les lobes optiques dans les squales, il suit que les premier lobes sont les olfactifs, et que les lobes cerebraux manquent dans ces poissons." (*Journal de Physiologie*, tome iii., p. 349) In the text we have given the enumeration generally received.

of being double. In all other of the vertebrata they are single, and situated just behind the brain proper. In the mammalia the optic nerves come from the anterior pair (or the nates,) and running forwards, and downwards have connections with the corpus geniculatum externum and with the tuber cinereum. Over the sella turcica, the optic nerves decussate. This fact is evident in fishes, upon a view of the parts. It has been, however, a subject of discussion, whether such was really the case in the mammalia. Wollaston believed that the crossing of the fibres was only partial, and confined to the internal portion of the nerves; but the experiments of Magendie seem to prove that there is no difference in this respect between mammalia and the lower vertebrata. "I cut," says he, "the right optic nerve of a rabbit, behind the point of junction; vision was destroyed in the left eye. I then cut the left nerve, and the sight was altogether lost. On another animal I separated into two equal portions the nervous mass at the point of junction; the animal immediately lost the power of seeing; the decussation, then, is not partial, as Wollaston had supposed, but total."*

What has been said of the olfactory tubercles may be applied to the optic. The optic, however, seem to have a more direct communication with the brain than any other of the nerves. The experiments of Rolando and Flourens, which have since been repeated and confirmed by Magendie, prove that the removal of the cerebral lobes destroys vision, though the optic nerves be untouched. The ablation of the right lobe destroys vision in the left eye, and vice versa. The reasons given by Magendie for this intimate connection are ingenious and probably true. "If," says he, "we seek the reason why the sense of sight is so different from the other senses, with regard to the number and importance of the nervous masses which are in connection with it, we shall find that vision very rarely consists of a simple impression of light; that this impression may even take place without the existence of vision; that on the contrary, the action of the optic instrument is almost always conjoined with operations of the mind, either intellectual or instinctive, by which we establish the distance, the magnitude, the form, and the motion of bodies; operations which probably include, of necessity, the intervention of the most important parts of the nervous system, and particularly that of the cerebral hemispheres."

3. The third nerve (not in anatomical but physiological arrangement) is the acoustic, or nerve of hearing; it is described as arising from the bottom of the fourth ventricle. The two Wenzells observed in 1791, for the first time, a small grey band slightly prominent, placed also transversely upon the corpus restiforme, and which constantly covers a part of the base of the auditory nerve, which it unites with the fourth ventricle. Prochaska is hitherto the only one who has given a

* *Precis Elem. de Physiol.* p. 27—"Sur des oiseaux le fait de l'entrecroisement se prouve d'une autre manière. Je vide l'œil d'un pigeon; quinze jours après j'examine l'appareil optique, et je trouve la matière nerveuse disparue et le nerf atrophié en avant de l'entrecroisement du côté de l'œil vide, et du côté opposé, derrière l'entrecroisement. L'atrophie se prolonge jusqu'au tubercule optique, point où le nerf optique prend son origine."

† Cuvier—Report on Gall's Anatomy of the Brain.

representation of it. It is likewise observed in animals; and Dr. Gall, who adopts, in this respect, the opinion of the Wenzels, remarks that it is more swelled in every species the larger the ears are, and the more acute the hearing is.

In the *horse*, the *stag*, the *sheep*, it is a tubercle almost as large as the eminence called testes. We have found this circumstance to be true.

The Acoustic nerve, then, in all probability, has a distinct sensorium, like the olfactory and optic.

4. All the other nerves of sensation arise from the posterior column of the spinal marrow; and their tubercle or sensorium is the medulla oblongata. The nerve of taste is a branch of the fifth pair, a spinal nerve in every thing but location: hence, taste, as we shall see hereafter, is but a modification of general sensation, not of touch or tact, as has been often and erroneously said.

The olfactory, optic, and acoustic, are nerves which seem to be organized, each, in a manner *sui generis*. Whatever object of impression comes in contact with them, each transmits to the sensorium a peculiar and specific sensation. When couching for the cataract, we often wound the retina; but it is not a sensation of pain that is produced,—it is that of a spark of light. Blows, and pressure on the eye, always produce flashes of light; so that in whatever way the optic nerve may be affected, no other sensation than that of light is excited. So, too, the olfactory and acoustic, howsoever they may be irritated, never transmit any other sensations than those of smell and sound. The experiments of Majendie have proved these assertions. Having exposed these nerves to all sorts of laceration, pricking, cutting, etc., he found them completely insensible—the animals gave not the slightest symptoms of pain.*

Nor can it be said the specific sensations derived from these nerves are dependent on the organs in which they are finally expanded. On the contrary, the organ seems to have been constructed to convey to the nerves the destined object of impression. The eye is an optical instrument, the whole purpose of which is to concentrate the rays of light in the retina. The like may be said of the ear and the nose. Again, the retina is expanded on the choroid coat, and the olfactory nerve on the nasal mucous membrane; and they are both soft and delicate. Now, although odorous particles cannot be brought in contact with the retina, we can make light impinge on the olfactories, but no sensation of light is thereby produced. Vibrations on the acoustic nerve produce sound: vibrations propagated to the retina cause the sensation of light.†

* *Precis Element. et Journal de Physiologie*, tom. iv.

† "If a piece of silver or of gold be passed as high as possible between the upper lip and the gums, while at the same time a plate of zinc is laid on the tongue, or applied to the inside of the cheeks, and if a communication be then made between the two metals, either by bringing them into direct contact, or by means of a wire touching both of them at the same time, a flash of light is seen by the person who is the subject of the experiment".—Roget, *Bridgewater Treatise*, v. ii, p. 362.

"An officer received a musket ball which went through the bones of his face. In describing his sensations, he said that he felt as if there had been a flash of lightning, accompanied with a sound like the shutting of the door of St. Paul's."—Sir Charles Bell on the Hand, p. 133, Am. Ed.

We may also draw arguments from Anatomy. Each of these nerves is always the same in origin, situation and destination. Their place is never supplied by other nerves; no anomalies are ever found, as among the arteries. Treviranus has, indeed, asserted that the retina of the mole was formed by a branch of the fifth pair; but more recent observations disprove his assertions. Cuvier states that he could demonstrate the optic nerve of this animal, passing from its usual place of origin onwards to the eye, in every case in which he made the dissection.*

The appearance, too, of these nerves, when the sense has continued unaffected during life, is found to be the same in every case. The iæ factories are always remarkably soft, and have, in every case, their strol-of grey matter, and their tubercles. The optic evinces its peculiar whiteness, rotundity and decussation. The acoustic has a peculiar appearance, which must be seen to be recognized; it is always extremely soft.† From these considerations, it is highly probable, that the interior ultimate structure of these nerves is different each from each, and from those nerves of general sensibility which are attached to the medulla oblongata and posterior column of the spinal marrow.

We say that this opinion is probably true, because, in truth, the point is, from its nature, incapable of rigid demonstration. These nerves come invariably from certain parts of the encephalon; and it is impossible to say whether the different sensations we experience do or do not depend altogether on the action of those parts. The optic nerve may *possibly* undergo the very same change from the prick of a couching needle, that a nerve of general sensation would undergo from the same cause; and the whole reason why we experience the sensation of light in one instance, and that of pain in the other, may depend on the functional action of those parts of the encephalic mass from which the nerves arise.

Let us now attend to those nerves which arise from the medulla oblongata and posterior column of the spinal marrow.

These are, 1st, one half of the fifth pair; 2d, the eighth pair or pneumo-gastric; 3d, the glosso-pharyngeal; 4th, one half of all the spinal nerves, including the sub-occipital. Certain other nerves give no evidence whatever of possessing sensibility. They are, 1st, the third pair; 2d, the fourth; 3d, the sixth; 4th, the facial or seventh; ‡ 5th, the

* Regne Animal, tom. i. also Carn's Traite d'Anatomic Com. p. 103.

† "Desmoulins, however, asserts that in the genus ray, (la Radie) the acoustic nerve is a division of the fifth pair, and that its posterior filament reunites with the first bronchial nerve, an anastomosis, which is not found elsewhere."—Vide Magendie Jour. de Phys. tom. ii p. 132. A branch of the fifth pair, goes to the ear in all cases—now is it not more probable, that the acoustic, (an extremely soft and delicate nerve,) was overlooked by Desmoulins, and this branch of the fifth mistaken for it? Is not the probability of this, enhanced by what the author says in another place, (p. 130) "Dans tous les poissons, *excepte les raies*, et peut être le seul genre, squallus scyllium, le nerf acoustique est séparé et distinct de la cinquième paire."—The exception then is solitary, and of course needs confirmation from other observers.

‡ "Quant à la portion dure de la septième paire ou nerf facial, il est dans une position toute particuliere, il ne paraît pas être sensible par lui même; cependant s'il est mis à nu sur un animal vivant, il donne des indices non equivoques de sa sensibilité, mais anciens collaborateurs, maintenant professeur de physiologie à Co-

hypoglossal; and, 6th, the anterior of all the spinal nerves, including the sub-occipital, and the fifth pair. The ganglionic system of nerves (nerves as well as ganglia,) are also insensible under ordinary circumstances. In disease the organs to which they solely are distributed become highly painful. These are the nerves which possess, and nerves which do not possess, sensibility. This doctrine is not the offspring of conjecture; the truth of it is demonstrated by the experiments of Magendie, Sir C. Bell, Professor McCullen and others, and it is now generally admitted by physiologists.

The nerves of sensation, or those arising from the posterior column of the spinal marrow, have this peculiarity: a ganglion, the use and intimate structure of which are unknown, is invariably interposed between their point of junction with the motor nerves and the spinal marrow. In the mammalia, the point of junction takes place in the intervertebral holes, where the two nerves become confounded and blended in such a way, as even often to defy the art of the anatomist in an attempt to separate them.

We have now, then, reached the question, whether these nerves are really separate in their own appropriate sheaths from the point of junction, to their ultimate diffusion in the organs; or whether the fibrillæ of the nerves anastomose among themselves so as to blend the medullary matter of one with that of another?

It has been said, "that the neurilema forms a general envelope to the nerves, and furnishes partial envelopes to the nervous cords, as well as to the component filaments; it resists strongly. When it is empty, it represents an assemblage of little canals; these canals uniting together, open into each other at different distances." Again, it is said that Reil, "by washing the nerve with water and nitric acid, at the end of a certain time, the neurilema is entirely destroyed, and there remains medullary filaments, which may be seen crossing each other, reticulating against each other nearly like the optic nerves in their commissure. On the other hand, plunging a nerve into ley, which may be regarded, as an alkaline solution of sub-carbonate of soda, the medullary substance is

penhague, M. Eschricht, a prouvé par plusieurs expériences, très-finement conduites, que si ce nerf est sensible, il le doit, comme toutes les parties de la face, à l'intégrité de la cinquième paire; ce fait remarquable decoulait aussi d'une expérience que j'ai faite, et que consiste à couper le tronc des deux cinquième paire dans la crâne: alors toute la face perd sa sensibilité; par conséquent, celle de la septième paire y est comprise; mais l'idée de faire ressortir cette conséquence ne m'était pas venue. Il est heureux pour la science que mon savant confrère y ait songé, et qu'il en ait fait un sujet spécial de recherche. Cela nous a valu un bon mémoire, (voyez mon Journal de Physiologie) Magendie, *Precis Elem.* p. 68.

NOTE.—All over the face, the fifth pair frequently joins, by anastomosis, with the facial nerve; when this nerve, then, gives indications of sensibility, it is more reasonable to believe that we are really pricking or piercing some concealed twig of the fifth, than to admit some mysterious influence exercised by that nerve over the seventh.

N. B. A branch of the fifth, joining with a branch from the ganglion of Meckel, forms the vidian nerve, and enters the internal ear. Does it there unite with the facial in its passage outward? Meckel, following Beck, declares such to be the fact. Vide *Manuel d'Anatomie*, tom. iii. p 94.—In truth Magendie, himself mentions the fact; vide *Precis Elem.* p 50, art. *nerf acoustique*.

destroyed, and the neurilemmatic sheaths are obtained. To hinder them from becoming effaced, they may be filled with air, which is very easy, by forcing this fluid into one of them, since they all communicate with each other,"* etc.

Opposed to this we have the opinions of Magendie—"I believe," says he, "what has been said on this subject to be hypothetical. I have done my best to repeat the preparations recommended by anatomists for the purpose of displaying this structure: I have never been able to recognize it. The tenuity of the nervous fibres appears to me of itself a powerful obstacle. Now, when we can scarcely, with the aid of the microscope, perceive the fibre itself, and when we can, with reason, suppose it formed of fibres still smaller, how is it possible, I say, for us to distinguish a cavity filled with a pulp."†

Are there two distinct masses of nervous matter in a muscle, with each of which these nerves are respectively in communication? Touch a muscle, however lightly, with the point of a needle, and there will ensue both a sensation and a contraction of the fibre, which, indeed, may extend to the whole muscle.

The most probable conjecture on this subject seems to me to be this: We should regard the nervous substance diffused in the organs as homogeneous: between this diffused nervous substance and the sensorium there exist two means of communication, one thence to the encephalon, the other from the encephalon to the periphery. The best evidence of the truth of this is derived from the researches of Sir Charles Bell, etc. (See foregoing page.)

With the exception of the ganglia on the posterior nerves, anatomy has failed to distinguish any difference of structure or composition, between them and the anterior. But that there is a difference, and a great one, is obvious from the very different functions they perform.

Relation between the nervous matter and the objects of Impression.

What is the nature of the change produced in the nervous matter by an object of impression? and in what way is it transmitted to the sensorium? That a change in the condition of the nervous matter is effected, we must, of necessity, believe; unless it be contended that this substance is not requisite to sensation, which is an hypothesis contrary to all observation and fact.

The questions proposed above have been discussed in another place; we have nothing to add here, to what has been already said.

* Bécclard, *General Anatomy*, p 494-6—Philadel. trans. by J. Tegno.

† *Precis Elem.* p, 71.

The best evidence of the non communication of the fibrillæ, is derived from the researches of Sir C. Bell; he has shewn that certain nerves of the face, arise from the anterior column of the sp. marrow, and go out to the organs, unconnected with other nerves;—these nerves are invariably found to be nerves of motion only. The ophthalmic branch of the fifth pair, is a sensitive nerve, and supplies the muscles of the eye, but these muscles have also other nerves, which are strictly motor, such as the 3d, 4th, 6th, and branches of the 7th.

These changes in the nervous matter are not the same in all instances; and we speak now, not of sensation modified by the tissue, in which the nerve is expanded, but of sensations derived from the same tissue. The cause of this diversity in our sensations is, undoubtedly, the different nature of the objects of impression. The skin is affected in various ways, by different bodies; some are smooth, some rough, and so on. Heat produces a sensation *sui generis*; and cold, or the absence of heat, gives rise to feelings still unlike all others. The bite of an insect; the accumulation of filth, or an erysipelatous inflammation, produces a still different sensation, which we term "itching." Tickling is another sensation derived from the nerves of the skin. Much might be added to this, and the same kind of remarks extended to the other organs.

For instance, certain rays of light, falling on the eye, give rise to the sensation of blueness; others of redness; others, again, are yellow; others green, and so on. Now, these different sensations can only depend on a different change produced in the retina, in each particular case, and the causes of these different changes must, of course, be referred to a difference in the objects of impression. The objects of impression, then, take a large share in the function of sensation: in fact, by respectively producing a peculiar change in the nervous matter, they determine the particular sensation; and it is well that they do; were it otherwise—did all bodies produce the same change in the nervous matter, our sensations would have been one and the same for every case; all bodies would have been the same to us, and would have possessed but one property recognized by this common sensation. Under such circumstances, the existence of animal life is impossible. We must not only be capable of feeling, but of feeling variously. The purpose of sensation is to make known to the individual the relations which he holds with the world without; there must, be then, of necessity, a reciprocal adaptation of the nervous matter to the objects of impression.

Such being the case, it is evident, that every change in the condition of the nervous matter must interfere with this relation. The phenomena of disease frequently indicate to us, that such a change has occurred. Hence, in disease, we have the sensations variously modified. There are certain substances, as opium, digitalis, hydrocyanic acid, etc., which have the peculiar property of rendering the nervous matter incapable of undergoing those changes necessary to sensation. When taken into the circulation, or applied in sufficient quantity, directly to the nervous substance, they diminish the intensity of pain, and may even put a stop to the phenomena of life, by producing complete disorganization. To account for this, it seems to us necessary to suppose that they act by producing a chemical change in the nervous matter.

Following up this law—that every change in the condition of the nervous matter must alter its relations with the objects of impression—we have a general explication of many phenomena.

Every object of impression produces its own peculiar effect on the nervous substance; hence, different parts of the system are not left in the same condition, after being in contact with different bodies. If we lay one hand on a piece of wood of the temperature of 50° F., it will

feel cold. But if we should previously have placed one hand in ice water, the wood would feel warm; if we now touch it with the other hand, it will give the sensation of cold.

It must be obvious, that in these experiments, the nervous matter does not exist in the same condition, in each hand. Persons who, by surgical operations, have been suddenly restored to sight and hearing, after a long disuse of these senses, evidence the same thing, the slightest impressions producing an effect, equivalent to the most powerful in other individuals. The following interesting case is from Roget's *Bridgewater Treatise*: "A gentleman had been, for several years, very deaf, in consequence of the obliteration of the Eustachian tube, so that he could scarcely hear a person speaking in a loud voice close to his ear. As soon as the instrument which had made the perforation was withdrawn, the by-standers began to address him in a very low tone of voice, and were surprised at receiving no answer, and at his remaining immovable in his chair, as if stunned by a violent blow; at length he burst into the exclamation, 'For God's sake, gentlemen, refrain from crying out so terribly loud! you are giving me excessive pain by speaking to me.'" The Surgeon,* upon this, retired across the room; unfortunately, however, the creaking of his boots caused the gentleman to start up in an agony from his chair, at the same time applying his hand instinctively to cover his ear; but in doing this, the sound of his fingers coming in contact with his head was a fresh source of pain, producing an effect similar to that of a pistol suddenly fired close to him. For a long time after, when spoken to, even in the lowest whisper, he complained of the distressing loudness of the sounds; and it was several weeks before this excessive sensibility of the auditory nerves wore off; by degrees, however, they accommodated themselves to their proper function, and became adapted to the ordinary impression of sound."† In the same work it is related that Sir W. Herschell, by long training, brought about such a state of the retina, that the faintest ray of light produced a vivid sensation. "It often happened to him, when in a fine winter's night, and in the absence of the moon, he was occupied four, five, or six hours, in taking sweeps of the heavens with his telescope, that by excluding from the eye the light of surrounding objects, by means of a black hood, the sensibility of the retina was so much increased, that when a star of the third magnitude approached the field of view, he found it necessary, immediately, to withdraw his eye, in order to preserve its powers. He relates, that on one occasion, the appearance of Sirius announced itself in the field of the telescope like the dawn of the morning, increasing by degrees in brightness, till the star at last presented itself with all the splendor of the rising sun, obliging him quickly to retreat from the beautiful but overpowering spectacle."

In these instances, it is obvious that the usual relations between the nervous matter and the objects of impression are altered. The cause of this is undoubtedly some molecular change that has occurred in the nervous substance itself; but except other general nature of the

* "M. Mannon, of Geneva, on whose authority I have given this account,"

† *Op. Cit.* vol ii, p. 371. Am, Edit.

change and of the proximate causes that bring it about, we are (as I have often repeated,) entirely ignorant. In the present state of science, even an investigation of the subject is impossible.

The cases last cited are examples of the influence of habit over sensation. Let us continue the subject.

A repetition of the same sensations may cease to be agreeable or painful, from association of ideas. The brilliant colors of the snake are hateful to us, because a sight of the animal calls up ideas of pain and horror. Landscapes, which at first give us pleasurable feelings, cease, after a time, to do so. A sweet tune becomes disagreeable, if heard too often. Here, neither the pleasures nor the pains are the offspring of sensation alone; they are rather emotions than sensations, called into existence by the imagination, or the memory. It is not, then, of these, and similar facts, that we now speak; we allude to cases in which the reverse of what happens from a disease of the nerves, takes place. We have seen above, that the senses of sight and hearing become highly acute, when they have not been acted on, for a long time, by the objects of impression. They lose this exquisite susceptibility, by use:—and here, at once, is an example of the influence of habit. The objects of impression, acting on the nervous substance, change its condition, and seem to leave their influence behind them, long after they have ceased to be present. Articles of diet, as olives, tomatoes, etc., which at first are disagreeable to the taste, are relished, after using them for some time. The appetite for tobacco and opium are instances to the same purport; here, the after affection of the nerves must be different from the first; for, were it otherwise, the same nauseous, disagreeable sensations would be repeated. Hence, too, it is, that we suffer so much less in long continued cold weather, than we do from sudden changes. The inhabitant of Lapland supports, without inconvenience, a degree of cold that would be fatal to one from the torrid zone. Other examples of the same kind are common. A catheter introduced into the urethra, a bougie into the rectum, a probang into the œsophagus, tubes into the lachrymal ducts, etc., etc., cause severe suffering at first, but become, after a time, scarcely inconvenient.* The proximate causes of

* Bichat, in his work, "Sur la vie et la mort," has a chapter entitled "Différences générales des deux vies, par rapport à l'habitude." It is well worth a perusal. We extract a passage, principally, on account of its melancholy eloquence—"Il est donc de la nature du plaisir et de la peine de se détruire d'eux-mêmes; de cesser d'être parcequ'il ont été. L'art de prolonger la durée de nos jouissances, consiste à en varier les causes. Je dirais presque, si je n'avais égard qu'aux lois de notre organisation matérielle, que la constance est un rêve des poètes, que le bonheur n'est que dans l'inconstance, que ce sexe enchanteur que nous captive aurait de faibles droits à nos hommages, si ces attraits étaient trop uniformes, que si la figure de toutes les femmes était jouée au même moule, ce moule serait le tombeau de l'amour, etc., mais gardons nous d'employer les principes de la physique à renverser ceux de la morale; les uns et les autres sont également solides, quoique parfois, en opposition. Remarquons seulement, que souvent les premiers nous dirigent presque seul; alors l'amour, que l'habitude tâche d'enchaîner, fuit avec le plaisir, et nous laisse le dégoût; alors le souvenir met un terme toujours prompt à la constance, en rendant uniforme ce que nous sentons, et ce qui nous avons senti; car telle paraît être l'essence du bonheur physique, que celui que est passé, enfeblé l'attrait de celui dont nous jouissons. Voyez cet homme que l'ennui dévore au-

these facts, like all others of the same kind, are unknown; we see different effects—we must infer different causes.

In the beginning of the present chapter, it was said that sensations were more or less acute, in different organizations. All know that some persons suffer exquisitely, from causes which produce no inconvenience to others. These persons are said to be of an irritable habit, and hence the distinction which has been made, in all ages, between the phlegmatic and nervous temperaments. It is a familiar fact, that some persons are unable to hear very acute sounds, such as the pittering of the grasshopper, or the chirping of the cricket; as some, likewise, are able to see smaller objects, and by a fainter light, than those around them. As a general rule, the nerves of women are more susceptible of impressions than those of men. But the susceptibility of the same individual is varying constantly. It is greater in childhood than in manhood; and in manhood than in old age. It varies again, according to our health; the time of the day; to the mental emotions by which we may be influenced, and many other circumstances. The constitution of the nervous matter, then, is different in many individuals, and in the same person, at different times.

As the organization is changing from embryo life to old age, not only in its external forms, but also in its elemental constitution, the nervous substance, which is a part thereof, is comprehended in this alteration. Hence, our sensations are not precisely the same at different stages of life. How acute and exquisitely pleasurable are our sensations in childhood! How much of the happiness of that period is owing to them! But how changed in after life!

It is owing to the same cause, (a difference in organization, and consequently the existence of different relations with the same objects of impression,) that some persons are unable to distinguish colors with accuracy. We extract some examples of this defect from Dr. Brewster's Treatise on Optics. "The persons who experience this defect have their eyes, generally, in a sound state, and are capable of performing all the most delicate functions of vision. Mr. Harris, a shoemaker at Allonby, was unable, from his infancy, to distinguish the cherries of a cherry tree from its leaves, in so far as color was concerned. Two of his brothers were equally defective in this respect, and always mistook *orange* for *grass green*, and *light green* for *yellow*. Harris, himself, could not distinguish black and white. Mr. Scott, who describes his own case in the Philosophical Transactions, mistook *pink* for a pale blue, and a full red for a full green. * * * * * This defect in the perception of color was experienced by the late Mr. Dugald Stewart, who could not perceive any difference in the color of the scarlet fruit of the Siberian crab, and that of its leaves. Mr. Dalton is unable to distinguish blue from pink, by daylight, and in the solar spectrum the red is scarcely visible, the rest of it appearing to consist of two colors. Mr.

jourd'hui, à côté de celle près de qui les heures fuyaient jadis comme l'éclair; il serait heureux s'il ne l'avait point été, ou s'il pouvait oublier qu'il le fut autrefois. Le souvenir, est dit-on, le seul bien des amans malheureux : soit mais avouons qu'il est le seul mal des aimans heureux." p. 62.

Troughton has the same defect, and is capable of fully appreciating only *blue* and *yellow* colors; and when he names colors, the names of blue and yellow correspond to the more and less refrangible rays, all those which belong to the former exciting the sensation of blueness, and those which belong to the latter, the sensation of yellowness.

In almost all these cases, the different prismatic colors have the power of exciting the sensation of light, and giving a distinct vision of objects, excepting in the case of Mr. Dalton, who is said to be scarcely able to see the red extremity of the spectrum.*

As a change is undergone in the nervous substance, when an object of impression comes in contact with it, it follows that some time must elapse, after the contact, before the sensation is experienced. The quantity of time, in ordinary cases, is so minute that it is incapable of valuation; yet, when the subject is attentively considered, it admits of direct proof. A cannon ball, passing before the eye, is invisible, although it is a body of considerable magnitude, and rays of light reflected from it must have reached the retina. The fly wheel in a musical box spins so rapidly, that without the minutest inspection, we can perceive nothing. We have elsewhere shewn, that a quick succession of rapid ærial pulses is necessary to produce the sensation of sound.† If sensation followed the contact instantly, one pulse would be sufficient.

As the nervous matter must return to its original condition, it follows, from the same law, that sensations must endure for some time after the objects of impression are withdrawn. This fact is known to all, and needs no dwelling on when predicated of pathology. The prick of a pin in a lacerated or incised wound, gives pain for a long time. But it is equally true in physiology. The continuous circle of fire, caused by whirling a stick lighted at one end, is a familiar instance. The long train of light left by a meteor, shooting athwart the sky, is another. The perception of a musical note, is the result of vibrations in the air, affecting the acoustic nerve, at regular intervals of time. If the intervals are irregular, we have a discord. Now, this could not be possible, unless the effect produced by each vibration endured for some time. Were it otherwise, one note would be as musical as another.‡

As in every sensation, there is a molecular change in the nervous substance, it likewise follows that sensation may be carried to such an extent, as to interfere with the essential operations of life. Hence, objects that cause extreme pain may cause death, though acting on no vital part. The pain, in truth, is but an accompaniment, or a manifestation, of the change going on; the immediate cause of death, being the lesion in the nervous substance. Again, as another consequence of this law, it follows that there must be a limit to the continuance of sensation, and this occurs in what is termed "exhaustion." This condition of the nervous system is brought about, when objects of impression

* Opuscit, p. 260. Am. Edit., See note C.

† This must be taken with the restrictions mentioned above, when investigating the influence of habit on sensation.

‡ The Thame, or wooden turner, is a toy which well illustrates this principle; for a description of it, see Brewsters natural Magic, p. 35.

have remained in contact with the nervous substance for a length of time, greater or less according to circumstances, and it may be local or general; when general, the nervous system takes on that condition, termed "sleep," which is the inevitable consequence of the physiological action of the nervous substance. We say *physiological* action, because in disease, the nervous matter existing under novel relations, may run into complete disorganization, without sleep occurring. This state may be postponed for hours, by increasing around us the number and character of excitants; but sooner or later come on, it will. The agents that usually excite sensation, are of avail no longer. The tired soldier sleeps by the side of the blazing cannon; the sailor in tempest and shipwreck; the criminal under the prolonged agonies of the torture.†

Local exhaustion occurs, when some particular portion of the nervous system ceases to give a sensation, although the object of impression remains in contact with it; a familiar example occurs in the effect of odors on the sense of smell. After smelling flowers for some time, the fragrance ceases to be perceptible, yet, if we change the species, or turn away for a while, so that the nervous substance may return to its original condition, we shall find the sense as acute as ever. Another instance is afforded by the sense of sight. If we look, for some time, at a red wafer, on a white ground, and then turn our eyes a little aside, we shall see a green spot, of the size of the wafer. The red rays, in this experiment, have changed the condition of a portion of the retina; that particular spot where the image lay, is affected differently from the rest of the nervous expansion; hence, when the white rays impinge there, the red rays will not be visible, and the complementary colors only will be seen: on the rest of the retina, the white rays have their full effect. We shall have then a green spot on a white ground.

It is plain, from the mere statement of these phenomena, that altho' the nervous matter is exhausted for one species of the objects of impression, it is not exhausted for all. It would seem that the object of impression has brought about such a condition of the nerve that no further change can take place; sensation then ceases, but the instant a new object of impression is presented, a new molecular change commences, and we have a new sensation. These facts, together with many of those mentioned above, lead us to believe that sensations are *only* experienced, when this change is going on, and ceases when it finishes; as effervescence goes on when a carbonate is decomposed by an acid, and stops as soon as the union is completed; other facts make this very probable. If we place a body in contact with the skin, the sensations, at first vivid, will die away, and as soon as the foreign body has attained the temperature of the system, we shall feel it no longer. Hence, many articles of our apparel give us no sensation; provided no further change be made, as pressure, motion, etc., we continue to be unaware of their presence. Again, the phenomena of ocular spectre are favorable to this supposition. If we gaze upon the sun, or any other bright body, for a few moments, and then turn away and close the eyes,

† See Bichat, "Sur la vie et la mort," p. 55.

a distinct spectrum of the object will be seen, which, fading gradually away, will after a while, re-appear in new and different colors. And this process will be repeated for a time, greater or less, according to the intensity and duration of the primary impression. Now, here it would seem that the nervous matter returns, by a successive series of changes, to its original condition. While passing through the first change, sensation is experienced, and ceases with the molecular movement of the nervous matter; here an interval occurs before the commencement of the second change, during which there is no spectrum visible. When the second change commences, sensation is again experienced, but is different from the former, as it is the concomitant or manifestation of a different kind of atomic movement in the nervous substance.

[To be continued.]

II.—REPORT on the Diseases which prevailed in the village of Marion, Perry co., Alabama, from the year 1842, to the close of the year 1848. BY WM. B. JOHNSON, M. D.

THE village of Marion, Perry county, is situate in about 32° 39m., north latitude, and 10° 29m. west longitude, from Washington city, with a population of about 1400, including one male and two female schools. The site is very broken; soil, sand and red-clay. It is located on the southern verge of an extensive tract of broken, poor, sandy country, stretching north, through the centre of the State, to the Tennessee river. The Cahawba river lies to the east, four miles to its nearest approximation, and between which and the villages are a continuous range of broken ground, large hills, and many deep valleys, through which but very few streams pass—the land is mostly in its native state. The sandy land on the south, extends to a distance of four miles, where the prairies commence, and spreads out south and south west. There is a continuation of broken, sandy hills on the west, to the distance of five miles. Two miles west, is a small, filthy, and sluggish stream, (subject to inundation in very rainy seasons,) that accumulates rapidly from the hills, and covers all the flat lands on its margin, and which is the receptacle of a large amount of vegetable matter annually, and from which a malarious influence arises, producing intermittent fever and dysentery.

On the east, one mile and a half, is another small stream, subject to the same changes from rain, and is the source of some sickness among those living near it.

There are no marsh lands, of sufficient extent, near the village, to have any influence over the health of its inhabitants.

In the year 1842, bilious remittent fever prevailed to a much greater

extent than it has done since, and in the prairies, or what is known as the cane brake lands, it was of a more grave character, and was more fatal: most of the cases were attended with engorgement of the liver, and in some cases acute inflammation; in one case, suppuration took place, and matter discharged through the bowels; it was a girl, about eight years of age, of nervous temperament. She was taken on the 20th of August, and was confined and under treatment until the 25th of September, and continued the use of medicine for some month or two, afterwards. Her health has been good ever since. There were but very few cases that would bear the abstraction of blood—having an early tendency to sink, attended with many of the symptoms that mark typhus fever.

There were not many cases of intermittent fever, and they were easily managed, except where they were exposed to the miasmatic influence of some marsh lands in the prairies. There were more cases of congestive fever than in any subsequent year, fifteen cases falling under my own treatment, and I am informed of some fifteen or twenty more. Of the fifteen cases, treated by myself, one died. In one family, south of Marion, on the Cahawba river, four or five died. I cannot now enter into an account of the causes, symptoms, and treatment of congestive fever; it is a subject of such deep interest, and on which, there is so much discrepancy of opinion, also, my view being somewhat at variance with those of most of my professional brethren, I shall let the subject rest untouched, until I can bestow that attention to it, which it merits.

In 1843 and 1844, the disease varied but little, with one exception, there was a manifest increase of disordered bowels; in the first mentioned year, (1843) remittent fever spread through the hills, to an extent before unknown, but of a mild form. There were a number of families who had resided on the same spot for eighteen or twenty years, and had never had a case of fever before. There was in both years, a considerable number of cases of pleuritis, particularly the latter part of the year 1844; congestive fever had diminished but little.

The antiphlogistic treatment, in the fevers of these years, required more caution than had been previously necessary; blood-letting was inadmissible, and active cathartics almost invariably produced diarrhœa or dysentery, and most of them were much disposed to assume the typhus livery. I saw many cases that ended in typhus, and some fatally, by mal-practice. One case of a mild remittent fever, that would have recovered, from the use of simple laxatives and cooling drinks, but he was in the hands of a celebrated knight of the steam kettle, and the man was literally burnt to death with red pepper, myrrh, and French brandy, and before he escaped from his tormentors, through the gates of death, his tongue was reduced to one fourth of its normal size, and as dry as a cracklin.

In the latter part of this year, there were many cases of catarrhal fever, pleuritis, and pneumonia. The cases proved most distressing, with such as had been debilitated from summer and fall fevers, and altho' there were not many cases fatal at the time, a number have died since, or who are in feeble health, who may justly date the loss of health, from the autumn and winter of 1844.

In the months of December and January 1845, there were many very severe cases of pneumonia, pleuro-pneumonia and catarrh with inflammation of the fauces, attended, most commonly, with small, quick and feeble pulse, quick and laborious respiration, paleness of the face, and a white tongue.

Intermittent fever made its appearance as early as February, and in March became quite prevalent. Some cases of dysentery, and early in the summer, cholera infantum prevailed to a very considerable extent, and proved fatal in a number of cases.

Remittent fever commenced early, and as the season advanced, it assumed a more serious aspect; the liver, stomach, and bowels, suffering considerably.

Measles paid us a short visit, followed by scarlet fever, but they were of mild character, with but few exceptions.

Congestive fever set in about the first of July, and continued until the close of Autumn, but less fatal than formerly.

Cases of uterine hæmorrhage, and menorrhagia were more frequent than formerly, and a disposition in pregnant women to miscarry.

In December and January 1846, sore throat prevailed to a great extent, attended with great oppression at the lungs, blanched face, small, thready, quick pulse, and in some cases ulceration and suppuration of the tonsils.

Early in January, there were a number of cases of typhus fever, some proving fatal; there were occasionally cases throughout the year, and in the fall there were a number of deaths.

Scarlatina, also, prevailed in the hills, north of the village, ranging from ten to fifteen or twenty miles distant, and was very fatal in some neighborhoods; some families lost as many as six or seven, and a number of adults died with it. I can learn nothing of the treatment.

Diarrhœa, dysentery, and cholera infantum, kept up a very even current during spring, summer and autumn, the latter proving very fatal.

Congestive fever and remittent fever prevailed in about the same ratio as the previous year, and if any difference, remittent cases were on the decline. Many suffered through the summer and autumn, from the effects of catarrh, contracted in the winter and spring.

In the month of June, a fever broke out on a plantation, eight miles north of the village, of a typhus character. The first case was a negro girl about thirteen years of age, died on the 8th day, without being seen by any physician. Subsequently, there were about fourteen cases. The second case proved fatal on the eleventh day after the attack, being the morning after the first call of a physician; the third case, a girl about the age of the first, proved fatal the third day after being visited, having been sick some eight or ten days; twelve recovered. In every case, the first symptom was pain in the head, dry, hot skin, dejected countenance, eyes stiff and of a watery appearance; extreme prostration, giddiness, and an inability to walk or stand erect; the pulse was very small, quick and frequent, ranging from 120 to 140; the tongue trembled on protrusion, covered with a white fur, through which the papilla appeared very distinctly. It was with great difficulty they answered any question, and in almost every case, they were delirious, particularly at

night. There was no complaint of nausea, but of a pain, or faint sinking feeling at the præcordial region, and soreness of the muscles. The bowels were easily excited to action, and required great care to keep them restrained within due bounds. There was nothing in the treatment, that should make it necessary to detail it here. In three cases, I used quinine to a very great extent, after the use of calomel and opium, to evacuate the bowels, with some other medicines, but I am of opinion, that it was of very little, if any benefit, altho' they recovered. I derived more benefit from the use of hydriodate potass and a decoction of *senna poligala*, than any other remedies.

The plantation, on which these cases occurred, is in a very elevated position, among and consisting of broken hills, and two miles from the Cahawba river, and no source of disease near, that could arise from malarious influence. It had been settled about twenty-five or thirty years, and had proved to be very healthy. The number on the plantation was five whites and thirty-one blacks. During the winter, there was much sickness among the negroes, but no cases of a serious character; most of their complaint was pains of the head and back. In the spring, bowel complaints prevailed, but were not serious. After the disease had prevailed on this plantation about twenty days, it spread to a number of families in the immediate neighborhood, but followed by no deaths.

Menorrhagia and uterine hæmorrhage prevailed to a great extent this year, and so much so, as to justify, in some degree, the suspicion of an epidemic character. I will here ask a question, which may give rise to more minute inquiries and observation in future: May not atmospheric influence be of such an enervating character, as to have this effect? I have noticed for the last twenty-five or thirty years, that these diseases prevail some years more than others. It is also the case in abortion and premature labours. Whether this may depend upon extreme wet and warm weather, or the converse of this, I am not able to determine, never having had it in my power to keep a correct meteorological register, but which would throw much light upon that obscure subject, atmospherical and terrestrial influence upon diseases. But this much we do know, that certain organs of the human body are affected, and diseases modified, by certain states of the weather, as the lungs, stomach, bowels, cutaneous surface, etc.; and I am persuaded, that if this subject received more general attention, there would be very many important phenomena, now obscure, that would be clearly elucidated.

1847.—The principal disease in the hills was rubeola, in the early part of the year, and of mild character, particularly in the month of April. There were also a number of cases in the village, some of which required active depletion. There were also many cases of mumps, through the surrounding country and village; dysentery prevailed in April, and continued to increase in frequency and virulence until midsummer. About the last of July, remittent fever commenced, and, like the fevers of the previous years, would not bear antiphlogistic treatment; gastritis and gastro-enteritis were pre-dominant; the tongue be-

coming dry very early, and assuming a brown color in the center, or of a varnished appearance; great thirst; tender epigastrium, with diarrhœa in almost every case, or easily induced by purgatives. In these cases of adynamic fevers with diarrhœal tendency, I found no medicine so well calculated to correct the vitiated secretions and restore tone and energy to the absorbent system as hydriodate potassæ, after calomel and opium.

This year, there were a goodly number of cases of uterine hemorrhage and menorrhagia, and some cases of hemorrhage from the fauces, which were unattended by fever, by catarrhal, or other symptoms, except extreme prostration; and they uniformly proved fatal. Not having any of these cases under my care, I have not been able to obtain an account of the habits and previous health of the patients, but I suppose they must have been of a strumous diathesis.

The diseases of the year 1848, like the six previous years, were remarkable for their tendency to a typhus character, with a predominance of gastric and enteric affections. Every class of diseases seemed to have a more than common enervating influence—early sinking, which required more than ordinary care and watchfulness to prevent a hasty dissolution in many cases. Fevers bore depletion badly, blood letting was out of the question, and purgatives used with much caution; emetics at the commencement were preferable, and I am of opinion, that they have not been so frequently used, as their known power justifies. The action of emetics, when rightly considered, seems to hold out the best means of treating fevers of this character, in the first stage; one important part of their operation is, to promote the biliary and other secretions, which are usually defective; they diminish abdominal congestion, and equalize the circulation, and are most undoubtedly among the most powerful alteratives we possess.

Quinine, which has been considered, by most practitioners, the *ne plus ultra* in fevers, has disappointed the hopes of many, in the fevers that prevailed in and about Marion, in 1848; it has rarely been of benefit, often inert, and frequently of disadvantage.

There seems to be a void in our therapeutics of fevers; one prominent symptom, difficult to remove, arising from vitiated, or suspended secretions, is a dry, brown and incrustated tongue, not unlike a piece of dark tanned leather, frequently becoming fissured, and if thrown off, the surface is of a deep red, and has a glassy or varnished appearance; wherever such a tongue is found, there is a general giving way of the vital powers; a dry, husky skin, with watchfulness, and indifference to surrounding objects; the prognosis is unfavorable; such a tongue indicates, also, a putrefaction in the fluids. In such cases, I have not found any remedy equal to hydriodate potassa; it has more power in restoring the secretions, and promoting a normal action in the system, than any other medicine, with which I am acquainted.

We often meet with cases where there is too much vascular action,—that will not bear blood letting, and from the state of inflammation in the stomach and bowels, we cannot use purgatives, and the patient is so low, that we cannot use diaphoretics with any success. What, then,

shall we do? Some would give digitalis; some tart. emetic, or some other sedative. Digitalis may do very well in the hands of some practitioners, but it being an accumulative remedy, I am fearful of it, and have not used half an ounce in thirty-five years practice. The principle and most reliable medicine I have used, to control the action of the heart, is the *sanguinaria canadensis*, either in powder or saturated tincture. And in place of Dover's powder, I use the following: *R. pulv. opii, pulv. sangua. canad., aa. one part, nitrate potass eight parts.*

There were a considerable number of cases of diarrhœa and dysentery, in the spring and summer, and of which children suffered severely; but in a general way, they yielded readily to the usual remedies.

After the use of an emetic or cathartic, and the inflammatory action being reduced, I have found much benefit from the use of *geranium maculatum*, in powder, or boiled with sweet milk; or in mild cases, and more particularly with children, I like the use of logwood, as recommended by Billing.

Infantile remittent fever prevailed very extensively, and in some cases proved fatal. I was called to one child, in the hills, that was treated with blisters. The little sufferer died a few hours after my visit.

There was, during the summer, some cases of parotides, whooping-cough; and in the hills, scarlatina, cholera morbus and bronchitis, a prelude to what the fall and winter brought forth. There were also many cases of menorrhagia and uterine hemorrhage, and some cases of pneumonia.

About the first of September, rubeola made its appearance amongst us, and has continued to the present time. I have collected all the cases that occurred in the village and immediate neighborhood, to the distance of a mile and a half, except about fifteen families, and I find there were six hundred and twelve cases; of these, there were one hundred and seventy adults; forty-eight men and two hundred and twenty-two women; two hundred and twenty-nine white children, and two hundred and twenty-three black children. Died of this number, four white women, three white children, two black men, one black woman and one black child, making eleven.

Of the six hundred and twelve cases, there were affected with diarrhœa, dysentery, or, subsequently, cholera morbus, four hundred and sixty cases; extraordinary inflammation of the fauces, eleven cases; subsequently, with typhus fever, four cases; pain in the ears, eleven cases; pneumonia, twenty-nine cases, none of which are yet radically cured. Consumption with whooping-cough, one case-fatal; consumption, one case-fatal; one death in a subject who had *tubes mesenterica* for two years; of this case no post-mortem examination could be obtained; congestion of the brain, two cases; enlarged tonsils, one case, not yet well; one death from the steam kettle; ophthalmia, with loss of one eye, one case; severe cases of cholera morbus, twenty-nine; supuration of the parotid glands, two cases, one-fatal.

It is unusual to find such a large number of complicated and irregular cases in any epidemic of measles as is here presented, and may have arisen from a predisposition induced from previous diseases, and

the peculiar state of the atmespheric influence, more especially upon the mucous membranes. "It is," says Villermé, "to irritation of the mucous membranes, particularly those of the digestive organs, that we are to attribute a great many of the cutaneous phlegmasiæ, hitherto regarded as idiopathic affections. The miliary eruption appears to be always symptomatic. We invariably find, in individual cases, and in the history of epidemic miliary fevers, that all the symptoms of irritation in the mucous membranes preceded the cutaneous eruption and coincided with it. On dissection, too, the physician has always found unequivocal traces of irritation and violent inflammation of some mucous membrane, falsely regarded as the *effect*, but evidently the *cause*, of the miliary eruption. It is equally certain, that in measles, the mucous membranes are primarily affected, and that, from their tissue, the irritation is reflected on the cutaneous surface :—In short, that the measles is only an epiphenomenon or appendix of the internal irritation." *Dict. des Sciences Med.*, tom. 32, p. 218.

From the character of the diseases in and about Marion, for some years past, it would appear that the system has been brought under that state, which renders the whole community more susceptible of diseases, which spend their force upon the mucous membranes, than is to be found under ordinary circumstances; and if the remark of Dr. Webster be correct, in his valuable work on Epidemics, "that measles and influenza generally precede pestilential diseases, we have great reason to fear that we shall soon have a scourge upon us, in the form of spasmodic cholera, as some eminent physicians think that the disease which we have recently had in some parts of our country is not true Asiatic cholera, but only a prelude to that terrible disease.

It is unnecessary to consider the progress of this epidemic in its regular forms, and the four well marked stages into which it is divided, to wit: febrile, eruptive, florescent and desquamative. Like all epidemics, there was great irregularity in its course. Some of the causes which contributed to the complication and irregularity of this epidemic, are the season, atmospheric vicissitudes, previous health, temperament and habits of the patient; also, an enervated state of body and mind, which, in the locality now under consideration, had more influence than is usually met with, as I have before mentioned: and I will here add another cause, and one that is on the daily increase: it is the inactive manner in which children are reared, more particularly females; kept confined in dark rooms, as tho' light and air bore death in every breeze, and as if it were the chief concern of life, to prevent the full and active development, and active growth of the mental and physical structure. We are raising a puny race of beings, for short lives of misery and disease, and early food for worms.

There were many cases, in which inflammation predominated at the invasion of the disease, but which quickly assumed the adynamic character, attended with catarrhal symptoms; severe coryza; eyes red and painful, with copious discharges; cough constant and very harrassing; great oppression in the chest, with difficult respiration, and in some cases, sputa streaked with blood; acute pain in the chest, with other

symptoms of pneumonia. The eruption appeared rapidly, and was of a deeper hue than in the regular form; also, more prominent. Cases of this kind ran their course much more rapidly, and if the patient be of a scrofulous habit, or predisposed to consumption, it is kindled up, and soon ends in the extinction of its victim.

When severe bronchitis occurred in this type, difficulty of breathing and paleness of the face preceded the eruption, which was generally partial, or receded prematurely; the lips are livid; respiration labored; countenance anxious; expectoration more or less copious; cough severe; pulse quick, small and oppressed; temperature of the surface variable and partial.

This state is often associated with congestion of the lungs; if effusion takes place, the encephalon is affected, and death follows. In less severe cases, inflammation of the lungs is the consequence, and very often progresses in so insidious a manner, as to be overlooked, until it arrives at that stage which bids defiance to the healing art.

Pleuritis and croup are also complications; but I am not informed of any such in this epidemic.

Gastric and bilious complications prevailed to a great extent, and I have no doubt that its direful consequences will continue to add to the charnel-house, for some years to come.

This complication is characterized by furred tongue, vitiated accumulations in the stomach and bowels, tender epigastrium, offensive dejections, severe cough, general depression of all the energies of the frame, slow or partial eruption, weak and frequent pulse, severe pains in different parts of the body, particularly in the head and back. To these signs, were often added irritation of the stomach, and congestion of the liver.

There were more than two thirds of the cases affected with diarrhœa, enteritis, or dysentery, during some one of the four stages of the disease, or subsequently. Many had cholera morbus, which was not confined alone to those who had measles.

Typhoid, or nervous type.—In this form, the disease was ushered in with extreme languor and depression of body and mind; rigors with subsequent burning heat, restlessness, wandering pains, delirium or stupor, heat and dryness of the skin, and dry coated tongue. The eruption appears more early and soon diffused over the surface, but faster than the regular eruption.

The previous symptoms became more aggravated, after the eruption. To these are sometimes superadded, more severe and fatal symptoms, such as dyspepsia, dry cough, oppression at the chest and præcordia; cordialgia; dryness and trembling of the tongue; dryness and redness of the fauces; change or loss of voice; vomiting; loss of memory; stupor; starting of the tendons; tumefaction of the abdomen; very quick, weak soft, open pulse, and scanty urine. There were two cases of this kind in the epidemic.

I am but very slightly acquainted with the course pursued in the treatment of the disease, by the physicians of Marion, having left home, for the west, on the 24th of October, and did not return until the 7th of December, and consequently was absent at its acme.

As I have nothing novel to offer on the treatment of this disease, it is unnecessary to swell the size of this paper, by a detail of what each one present is well acquainted with. In the treatment of the complicated and irregular forms, it is necessary to meet, promptly, every unfavorable symptom, as it may arise; and this comprises the whole course of our duty.

In most cases, and particularly where the lungs, liver, stomach or bowels are likely to become implicated, an emetic is preferable to any other remedy, in the first stage of the disease, and after its operation, a large blister should be applied over the chest. My opinion, as to the utility of emetics, has already been expressed, and also my reasons for that opinion. The use of blisters to the chest, in the early stage of measles, and *before the eruption appears*, was first recommended by Mr. Matthews, of the Royal College of Surgeons, London, in 1828, from the following considerations: "1st, that the disease is rendered shorter and milder; 2d, that the disposition to inflammation of the lungs, and its consequences, if not entirely prevented, is very much mitigated; 3d, that the patients are not more pre-disposed to colds or coughs than others, in whom no disease had taken place; 4th, that the recovery is more rapid and lasting.

Blood letting was not admissible in any case that came under my care; and I am of opinion, that there were none that required it.

Purgatives were given with much caution, and where calomel was administered, it was generally guarded with opium, and was generally preferable to any other course pursued, where purgatives were necessary; and, indeed, I might say, they were necessary in every case, in some form or other.

Diaphoretics, after an emetic or purgative, was most valuable where the stomach, bowels, or lungs were implicated; and when the lungs were affected, I preferred the seneka palygala. Expectorants were of no service, except in such as last mentioned. Antimonials were hurtful in all cases.

After desquamation, each particular case was treated according to the symptoms, and the part or organ affected.

In the use of tonics, I found a decoction of cascarilla preferable to quinine.

In inflammation and ulceration of the fauces, a strong solution of nitrate of silver was the only remedy I used, and so prompt was its action, that I had no use for any other.

There was one case which terminated in ophthalmia, with the loss of one eye; of the treatment or particulars of the case, I know nothing.

There was a lady, who took the disease about the 15th of November, and died on the 28th of December: I visited her on the 9th of December, the second day after I reached home, and found her extremely emaciated, with the left parotid gland very much swollen, and pus discharging from the ear. It had not been opened, and the abscess continued to enlarge, and I am of opinion it was the cause of her death, the drain being too great for the little strength that remained. And I will here only remark, that in all cases where suppuration takes place, the physician had better abandon the case than to make a slight opening; it

should be opened freely and to its full length, but executed with caution.

The foregoing statements point to one important fact, in which every physician in this country should feel deeply interested, and avail himself of every possible opportunity of becoming acquainted with the true character and treatment of the fevers of the present era. They have assumed a very different livery, from that of ten or fifteen years ago. Typhus or typhoid fevers, which was so long confined to more northern latitudes, has slowly marched southward, until it has reached our own theatre of action; and he who pretends to treat it upon the principles formerly pursued in bilious remittent fever of the south, will meet with nothing but chagrin, disappointment, and mortification. The reputation and success of the physicians, is not only involved, by neglecting to investigate this subject carefully and closely, but the safety of our whole population is endangered. The deep and serious consequences depending upon a true pathology of this disease, demands the utmost vigilance of every physician practising in the State, and lays him under obligations to impart his experience and the fruits of his investigations to his medical brethren as often as possible, that the disease may speedily be brought under the control of the healing art.

It appears to pursue an erratic course, appearing in different sections of the country, affecting one, or a few families, and confined to a small circle. I am acquainted with four such neighborhoods, and while it prevailed in these small circles, the surrounding country was exempt from the disease.

Worms in the Bladder—The Diroptera Hominis.

FEBRUARY 1st, 1849.—I was called on to examine a negro man Anthony, aged 23 years, the property of W. W., who had a discharge of purulent matter, frequently mixed with blood, from the urethra about two years; had suffered much from pain in the lumbar region of the spine and pubis, and frequently had great difficulty in urinating. He was very much emaciated; had been under the tender mercies of a knight of the steam kettle for more than a year.

Ordered a strong decoction of juniper berries, and mucilage of gum arabic, with half an ounce of saturated solution of sal tartar, to each portion, or half pint morning, noon and night, with fifteen grains of balsam copaiba with each dose of the decoction. This prescription was kept up for fifteen days, and he was so much improved that he was put to work in the farm, and was much exposed to wet and cold for about two weeks. On the 1st of March, he called for medicine, and was much worse than he had been; two days previous to this call, a discharge of worms took place from the bladder, and from this time to the 25th April, he passed some almost every day, up to the 18th of May, from which time but few passed until the 28th of the month, and on that day, he passed more than an hundred. I had given him, from the 1st of March up to the 28th of May, balsam copaiba, \bar{z} vi., spts. turp. \bar{z} ss., oil chenopod., \bar{z} ii. Mix and gave from 1 to 2 drachms, morning, noon and night. This course was unattended with any benefit, and

I then used the following preparation injected into the bladder: oil chenopod., 10 drops, mucilage gum arab. $\frac{3}{4}$ x.; mix, and half an ounce mixed with 4 oz. water and injected into the bladder morning and night, and retained from 4 to 6 minutes, keeping up the use of the juniper decoction. This course was continued one week, and from that time there was no appearance of worms; I put him on the use of quinine; he improved rapidly, and on the 25th of June was discharged, apparently in good health. I have not heard from him since.

On the effects of Urtica Urains in Menorrhagia.

On the 1st day of June, 1846, I was called to a negro woman, aged about 28, of sanguine nervous temperament. She had been taken, a few days previous to my visit, with catamenia, and on this morning, the discharge had been so profuse as to confine her to bed, attended with pain in the back and region of the womb; her pulse 80 in the minute, full and strong; surface moist; tongue clean. Gave 5 grains pulv. kino, and pulv. alum 5 grains; with instruction to repeat it every half hour, and make cold applications to the genitals, until the discharge subsided. Under this treatment there was a partial check put to the hemorrhage until the following day, at 10 o'clock, I was called in great haste, and was told that she was dying. It being but a few paces from my residence, I was with her in a few moments, and found her pulseless at the wrist, bathed in a cold perspiration; blind; ringing in the ears; respiration slow and labored; frequent sighing; and her bed saturated with blood. I had a quantity of the urtica urains got immediately, which grew in a few steps of the house, well beaten into a mortar, a little water poured on it, and strained out, and gave about an ounce; and in a few moments the discharge ceased. This was 10 o'clock in the morning. At 5 o'clock in the evening, the hemorrhage returned. Gave an ounce of the urtica uraens, which acted as promptly as the first; at 10 o'clock at night, some slight return; applied the tampon, and continued the remedy; also, gave one grain of opium. 3d, at 8 o'clock, A M., had a comfortable night's rest, some slight discharge this morning; pulse had become full and strong, 80 in the minute; gave one portion of the medicine, and 3 grains acetate lead, and $\frac{1}{2}$ grain opium. No return after.

Such was her exhaustion, that she was not able to return to labor, until the 13th of July, although kept on tonics the whole time.

2d Case,—Jan. 12, 1849.—Called to Mrs. M., aged 22, of leuco-phlegmatic temperament; had been confined during the fall with remittent fever and subsequently diarrhœa; much reduced; had nursed a child for ten months previously, had catamenia regularly until the last month or two. On this morning became unwell; had frequent and profuse discharges, with some coagula; gave kina and alum, 5 grains each; checked the discharge for twenty-four hours, at which time it returned; kept up the powders every two or three hours, until there was a check to the discharge, and then kept in bed two days, with an occasional powder. No return until the 3d February. Visited her on the 3d, found her with considerable fever, cough, and foul tongue; gave calomel 10 grains, blue mass 10 grains, made into two pills, one taken immediately

and the second in three hours, which operated copiously three times, with the loss of much blood.

4th. Clear of fever, but considerable hæmorrhage; gave a teaspoonful of the saturated tinct. *urtica urains* every two hours until the hæmorrhage subsides.

5th. Gave three portions; no discharge since taking the second dose; complains of pains in the bowels; gave $\frac{1}{4}$ grain morphia, which relieved her.

6th. Some fever this morning; great thirst; dry skin; tongue white; restless. Gave acetate ammonia tablespoonful; perspired very soon; fever subsided by evening.

7th. Clear of fever, gave a strong decoction of quassia and cascarilla; bowels to be moved by rhubarb.

27. Has continued to improve since.

3d. Case:—Feb. 17th, 1849.—Visited negro woman Eliza, 30 years of age, of plethoric habit; had been subject to profuse catamenia for several years, and frequently lasting ten or fifteen days; had been in bed two days; had been unwell for two weeks; some slight pain in pubic region; passed some coagula this morning; pulse full but very feeble; skin moist; complains of giddiness and blindness when attempting to rise, with ringing in her ears; had taken a dose of castor oil yesterday; operated twice; gave saturated tinct. *urtica urains*, teaspoonful every hour until discharge subsided; took but three doses; no return up to the 1st March.

Case 4.—Mrs. —, age 25; nervous temperament, subject to hysteria. Visited night, 1st. February, 1849; had several hysteric spasms before my visit; had catamenia on her for a week, and on yesterday walked a mile to visit a sick friend; discharge had become very profuse, with considerable pains; passed several coagula; bowels inactive; gave acetate lead 3 grains, opium $\frac{1}{4}$ grain, repeated every hour.

2d. Morning visit; no improvement; gave 20 grains rhubarb every visit; bowels moved twice; uterine discharge very profuse; ordered tinct. *urtica urians*, teaspoonful every hour.

3d. No discharge after the 2d dose; got up at noon, and attended to her domestic business; discharge returned at night; one teaspoonful of the tinct. checked the discharge.

17th. Hæmorrhage brought on by labor about her house and taking severe catarrh; one or two teaspoonfuls checked the discharge.

18th. Return last night but checked by the tincture; remained exempt from any more appearance until the 28th, when it returned; the tinct. *urtica urains* was used, but failed to have any effect, I then placed her upon 5 grain doses of pulv. ergot every four hours, and in twenty four hours it had entirely subsided.

Apoplexy of the South,—its pathology and treatment. By SAMUEL A. CARTWRIGHT, M. D., of New Orleans.

The apophlegmatic treatment is the most successful in apoplexy, as met with in this valley; it is not a disease peculiar to any climate or season, as it occurs in all—the coldest and the hottest; being most rife in the greatest extremes of heat or cold, and excessive variations of the weather. The greatest number of cases occur at the summer solstice and at the equinoxes, in this country. In cold climates, it is not uncommon at the winter solstice. It would be a great mistake to suppose, that as apoplexy is found everywhere, and at all seasons, its treatment should everywhere be the same or even similar. Pathologists coincide in the opinion, that every form and variety of the disease is attended with more or less pressure on the brain, interrupting the functions of the life of relation, sensation, muscular motion and intelligence. In a cold climate, the repletion of the cerebral vessels is often due to a surplus of arterial blood, and to an excessive action of the heart and arteries. The respiration of a cold, dense atmosphere tends to give a greater preponderance to the arterial over the venous system. Whereas, in a hot, damp climate the reverse is the case; a hot rarified atmosphere tending to accumulate the blood in the venous system. The treatment recommended by practitioners in high latitudes, from Cullen down to the present day, in apoplexy attended with cerebral pressure from arterial repletion and increased arterial action, is not the most successful in that form of the disease attended with coldness, torpor, and plethora of the venous system: Indeed, the standard works of the present day, in the hands of the profession, although containing many valuable improvements, are calculated to do more harm than good, as far as apoplexy and some other important diseases are concerned, to that portion of their readers who practise in a climate the very opposite of that where the books are written and the observations made; because, by directing attention to the arterial system as the source of danger, the nervous, the digestive, the glandular, the venous and the respiratory systems are apt to be overlooked, or to have too little importance attached to them, in those complaints with us, where each is more implicated in the morbid actions than the heart and arteries. Apoplexy from venous repletion is noticed by the authorities, but many important pathological phenomena, which occur in other systems, both as causes and sequences of the venous repletion, are left unnoticed. The serous or bloody extravasations, sometimes found in the brain, are only accessory; because, in many apoplectic subjects, no apparent lesion whatever is detected in that organ. The effusions found in the brain are mere effects of the cerebral congestion, and are nothing more than evidences of misdirected efforts of nature to relieve the hyperemia of the cerebral vessels. But there are other very striking phenomena witnessed in apoplexy, in this latitude, of another expedient adopted by nature to relieve the congestion of the brain, unnoticed by modern authors; consisting of copious exudations from the membrane lining the posterior nares, the tongue, cheeks, palate, uvula, pharynx, œsophagus, larynx

trachea, and the many cells, ducts and sinuosities into which the mucous tissue is reflected. In the healthy state, the pituitary portion of the membrane lining the internal nares, the maxillary, sphenoidal and frontal sinuses, and the ethmoid cells, throughout the greater part of its extent, is studded with glands and follicles, separating a mucilaginous lymph, called phlegm, or pituita, by the ancients; in apoplexy this fluid is poured out in much greater abundance than in health, and is more viscid and tenacious. Besides an increase of the mucosities, termed phlegm by the ancients, copious secretions or exudations take place from the glands and follicles connected with the respiratory and digestive apparatus and its mucous lining; these mucosities are often so abundant as to impede respiration and obstruct deglutition.

The stertorous breathing is more the effect of collections of tenacious mucus, impeding respiration, than from paralysis of the muscles of the larynx, as has been supposed. This is proved by the fact, that the breathing ceases to be stertorous on its removal. As nature may be said to commit suicide in apoplexy, in relieving the cerebral hyperemia by an effusion of blood or serum, so also, she does the same thing in her efforts to remove the repletion by exciting so great a flow of mucosities from the glands and follicles in the vicinity of the congested brain, and from the membrane lining the air passages, as actually to obstruct respiration and hinder the transformation of venous into arterial blood, unless art be brought in aid, to clear those important avenues of the offending viscid fluids, by the proper apophlegmatic remedies. The abundance of mucosities, blocking up those passages in apoplexy, is not a matter of speculation or conjecture: they can be seen and felt, and brought away, in the shape of tough, viscid ropes of agglutinated phlegm, by those measures and means called apophlegmatics. Paul of Agineta used a feather dipped in oil, to bring away the viscidities obstructing respiration, and assisted the removal with his fingers; as a preliminary measure to his ulterior treatment. Indeed, the viscid matter is often so tenacious as to admit of being laid hold of, and much of it extracted by mere manipulations. The celebrated remedy for apoplexy of the Dominican friars of Rouen, called "*Elixir Antapoplexia*" was nothing more than a combination of powerful apophlegmatic ingredients, calculated to disembarass the lining membrane of the trachea, larynx, fauces and posterior nares of the viscid mucus obstructing the air passages, and to excite the follicles, glands, and the membrane itself into active secretion, by direct medication to those surfaces on which many important nerves are expanded. The Friar's remedy won a high reputation for curing the disease; but not greater than its prototype, the veratrum album, had won all over Southern Europe for curing the same complaint.

In the Augustan age, after four centuries of experience of the curative virtues of the veratrum album, in the treatment of apoplexy, we find Celsus, (lib. iii, chap. xxvi,) recommending the same powerful apophlegmatic in the same disease, in conjunction with blood letting. The nanseous, bitter, acrid taste of the remedy, the burning sensation it occasions in the mouth and fauces, the tingling heat it excites in the nostrils, the nausea, vomiting and repeated retchings and the copious

discharge of mucus attending its action, point it out as one of the most efficient apophlegmatics of the *Materia Medica*. The harshness of its action led Aretæus to substitute milder remedies to remove the obstructing mucosities. Subsequently, Fothergill introduced the use of the white vitriol, which he gave in doses of a scruple to half a drachm, to induce active vomiting—Sydenham, Pitcairne, and a great many eminent names in the profession recommended emetics. A large portion of the physicians of Southern Europe viewed emetics, conjoined with pungent stimulating substances, almost as specifics in apoplexy. It was the high authority of Cullen, who discouraged the use of emetics and apophlegmatic remedies in the treatment of the disease. His objections were mostly theoretical, but as apoplexy, in the 56th parallel of latitude, is more owing to arterial excitement than to venous torpor, his objections may be founded on practical observations, applicable to the disease in Scotland, but wholly inapplicable in Greece, Rome and the United States. Cullen's theory and practice in apoplexy and Cullen's prejudices against emetics and apophlegmatics in its treatment, pervade the works of nearly all the medical writers who have since treated the subject.

The disease has been defined as a complete or partial suspension of the life of relation. The life of relation has two orders of functions, the one by which impressions from without reach the brain, the other by which the brain is exercised on the body. Both these orders of functions are suspended more or less completely. The brain can neither act nor be acted upon, except in a very imperfect manner in the complaint under consideration. Animal life, or the life of relation, is a mere abstraction, a subtle spirit without a body, when viewed separately from vegetative or organic life, on which it rests as a basis. Organic life has also two orders of functions. The one to assimilate substances to its nourishment by the processes of digestion, respiration and secretion; the other to carry out of the body the particles, which have become effete or noxious to the economy, by the processes of absorption, exhalation and secretion. Both these orders of functions, in the healthy state, are equivalent to each other, and both require a proper degree of activity in the circulating system for their due performance. The cause of Apoplexy must be looked for, not in animal life, but in the two orders of functions of organic life ceasing to be equivalent; in other words, in superabundant assimilation or in a defect of the excretory function. The first, constituting apoplexy from repletion of *red* and the latter of *black* blood, *that* connected with arterial reaction, as its most prominent feature, *this*, with venous congestion. When from defect of the secretory and excretory functions, as it generally is in warm weather and in warm climates, the safest and readiest method of cure is to awaken up all the absorbing, secretory and excretory organs from their torpor, into increased activity; particularly those glands and follicles in the immediate vicinity of the congested brain: the congestion itself, being the effect of the want of action in the excretory system. This is the method of cure, which nature points out, as is evidenced by the copious excretions of viscid mucus that occur during the apoplectic fit. So abundant is the excretion of

mucus in the nares, fauces, trachea and œsophagus, as to require the assistance of art to expel it, or this very effort of cure would itself become the cause of death, by obstructing the due performance of the respiratory organs.

On the other hand, in that form of the disease arising from a surplus of assimilated matter, introduced into the system by vigorous digestive powers, in a cold bracing atmosphere, depletion of the sanguiferous system by blood letting, would strike directly at the root of the evil, and restore the balance between the assimilating and excretory functions, by unloading the blood vessels, diminishing the morbid heat and quieting the excessive arterial excitement. Whereas, in apoplexy from venous congestion, with coldness and torpor, much loss of blood, or, indeed any, in many cases, would diminish the force of the circulation too much to be compatible with secretion, exhalation and absorption, these requiring so much activity in the circulatory system for their proper performance, as oftener to need stimulating substances, to excite that system, than the lancet to quell it. There is pressure on the brain in venous congestion, equally as in the other form of the disease from arterial fulness and re-action; but unloading the larger venous trunks will not unload the distention of the smaller vessels of the congested brain, where the danger lies, or do the good it does in the other form of the disease. Although blood letting is often serviceable, sooner or later, the main dependance is in giving energy to the absorbent, excretory and secretory actions, by addressing remedies directly to as large a surface of the sensitive, nervous expansions as can be reached. Stimulating applications to the cutaneous surface, as mustard, for instance, to the extremities and over the epigastrium, have great power in awakening the torpid nervous system; yet they are feeble remedial agents in comparison to stimulating applications to the mucous surface. One of the most effective remedies for the latter purpose, is a combination of mustard flour, table salt, ipecac, and tincture of assafœtida. When patients are utterly unable to swallow water, or the most bland substance, the mere presence of this combination in contact with the nervous expansions in the mucous membrane (lining the mouth, tongue, palate, posterior nares and fauces,) will detach the viscid mucus, which is choking and suffocating the patient, restore deglutition and give free egress to the atmospheric air, so essential to the respiratory system, and to vitality itself. It not only detaches and throws off the viscid phlegm, already formed by that low grade of vital action, termed passive exudation, but by its stimulus on the net work of nerves, it brings to the rescue of the patient a higher grade of vital action in the absorbent and secretory organs of the digestive and respiratory apparatus; and thereby unloads as if by enchantment, the repletion of the smaller vessels compressing the brain. Even the regurgitation of this powerful apophlegmatic into the posterior nares, when it cannot be swallowed, is not without its benefit. Its direct application to the membranes on which the entire olfactory pair of nerves and some important branches of the fifth are distributed, is well calculated to make a strong impression upon the sensorium. On the tongue, it lies in contact with

the expansions of the lingual branch of the fifth, the glosso-pharyngeal portion of the eighth, and nearly the whole of the ninth pair. Deep in the throat, it comes in contact with the superior laryngeal and recurrent nerves, branches of the pneumo-gastric ; awakening the torpid and paralyzed nervous system into life and promoting absorption, excretion and secretion in the broad expansion of the mucous surfaces, and the subjacent, as well as the distant organs, subservient to the important processes of elimination. When it is remembered that a large portion of the mucous membrane acts as a kind of periosteum, on one of its faces to the bones of the head, and on the other as an eliminating surface, it can readily be perceived, how important the mucosities thrown off by it must be in diminishing the plethora of the cerebral vessels. In children, whose heads are large, the secretions and excretions thrown off from the lining membrane of the mouth, throat and nares are in much greater quantities than in the adult ; thus proving the importance of such evacuations in preventing cerebral plethora, by an eliminating process or local depletion, constantly going on in the healthy state of childhood. In apoplexy, besides the beneficial effects of the mere presence of apophlegmatics in contact with the mucous surface of the mouth and throat, further advantages are to be derived from their deglutition, in doses sufficient to cause vomiting. Indeed vomiting without reference to the substances exciting it, does some good, but much less than when the substance employed is both emetic and apophlegmatic. In substituting simple emetics, devoid of apophlegmatic properties, for such articles as the veratrum album, possessing both properties in a high degree, the profession, instead of making progress, made a retrograde movement, and finally abandoned emetics almost entirely in the treatment of the disease. Some attention to the pathological phenomena observed in apoplexy and some other diseases, from venous congestion, will show the reason why apophlegmatic remedies cannot be dispensed with in their treatment. Observations prove that in such affections, the mucous membrane, even into the stomach, intestines, and lungs, is covered with mucosities of so tenacious a nature, as actually to form, over a great or less extent of its surface, an additional tunic, rendering the portion thus coated almost insensible to the ordinary medicines. In the lungs, the tenacious mucus obstructs the inflation of the cellular substance surrounding each of the extreme ramifications of the bronchial tubes, by stopping up the small air conduits, opening into the cells, and filling the cells themselves, which are lined by a delicate mucous tissue, with morbid exudations. In the human subject the bronchiæ end in cells exceedingly small, scarcely perceptible to the naked eye. In the alligator, however, Dr. Dowler's dissections (witnessed by the author) show that they are large bladders, equal in size to the urinary bladder of man. Their inflation brought the animal to life, after it had been apparently dead for nearly an hour, and the viscera of the thorax and abdomen had been laid open to view by a careful dissection; so perfect was the restoration of vitality, from the simple process of inflating the air cells of the lungs, that the partially dissected carcass had to be tied with strong cords to prevent its doing mischief. On suspending the inflating process, the air cells become flacid, and a corresponding suspension of animation again occurred, and was again revived by renewing the inflation.

No better demonstration of the great importance of the free expansion of the air cells of the lungs with atmospheric air, could be desired. An emetic, or some remedy capable of disembarassing the air cells, and the bronchial tubes opening into them, of all obstructing mucosities, must be of essential service in the treatment of such a formidable complaint as the one under consideration. But to derive much benefit from it, its action should extend further than a mere evacuation of the contents of the larger cavities: it should be capable of loosening and throwing off the tenacious phlegm coating the mucous surfaces, and filling the cells and smaller cavities. In other words, it should be apophlegmatic, a remedy possessing the virtue of detaching and throwing off phlegm.

The preceding remarks have been deemed necessary to throw some light on the rationale of the treatment contained in the following abstract: The merits of the treatment do not, however, rest on the imperfect reasons above given in support of it. The theory may be ever so imperfect or erroneous, and the practice good. The latter was derived from the school of observation and experience; the former was subsequently prefixed to the practice, and not the practice to the theory. If it be not a satisfactory explanation, the merits of the practice remain the same, wanting nothing but a writer better able to elucidate and explain it. The truths of a long and extensive experience, in the treatment of apoplexy, as met with in this valley, declare the practice to be successful.

Col. Wiley P. Harris, some 20 years ago, in the hot weather of mid summer, fell in a deep apoplectic fit in the streets of Natchez, and was among the first triumphs of the practice in the author's hands—a practice, which he had derived from the late Dr. J. A. McPheeters, who himself recently died of the disease, but not under the treatment, which he himself had successfully used for 25 years in Natchez, and had previously been eminently successful in his hands in the same disease in St. Louis and vicinity. Thus proving, that the good results of the treatment are not confined to the southern portion of the Mississippi Valley. Dr. McPheeters never published his experience, and when stricken down by the disease himself, he derived no benefit from it, but was treated *secundam artem*, as recommended by northern writers and teachers. In the hands of the author of this paper, the practice recommended in the following abstract, triumphed over a severe apoplectic attack in the person of the hero of Chapultepec and the first American governor of the city of Montezumas, Major Gen. John A. Quitman, long before he triumphed over the Mexicans. It cured the historian of the Mississippi Valley, Dr. J. W. Monett, of a severe attack, connected with hemiplegia. It cured both in a very short time. In Capt. Coarse's family, of Concordia, La., a case occurred, where the first immediate relief, from impending death, was procured by extracting the inspissated mucus, obstructing respiration, with the fingers. In the case of the commander of the Round Islanders, last summer, Col. W., who fell in his door, in this city, in a stertorous apoplectic fit, entirely in sensible and motionless, strong and pungent apophlegmatic medicines, conjoined with a mercurial, (omitting emetic substances,) succeeded in

effecting a prompt cure : camphor, assafœtida, capsicum, quinine, laudanum and mercury, each in a full dose, were mixed together and inserted into the mouth. The combination was in part regurgitated into the nares; deglutition being impossible, until after the medicine had disengorged the throat and fauces of the obstructing mucosities.

In this case, death was so close at hand, that the sphincters were relaxed. The emetic substances were omitted in consequence of the copious alvine evacuations. Recovery took place without bleeding, cupping, leeching, vomiting or purging, by the mere force of apophlegmatics, assisted only by the mercury to emulge the liver. The same happy result, from the same combination, used in the Col.'s case, (with the addition of blood letting, after re-action took place,) was witnessed in a case of apoplexy, in a very large, plethoric lady, a native of the Sandwich Islands, in the prime of life, attacked in the very hottest weather of last July, in this city, at the Planter's Hotel.

These recent cases, with some others that might be mentioned, go to show that the virtues of the following treatment depend, probably, less upon the emesis occasioned by the remedies used, and more upon their simple apophlegmatic action, than was hitherto supposed. The treatment, however, is given, word for word, as originally written, a long time ago, but not until now published to the world.

Treatment of Apoplexy.

Two teaspoonsful of table salt, two teaspoonsful of mustard flour, one teaspoonful of ipecac. and one teaspoonful of tincture of assafœtida, in a tumbler of warm or cold water.

The more disgusting the medicine the better, because it loosens the tenacious phlegm adhering to the throat and air passages. The pungency of the mustard is all important for the same purpose. The throat is so choked up with mucus and phlegm, that the swallowing of any thing is almost impossible. This mixture does great good without being swallowed. Its mere presence in the mouth and throat loosens the tenacious phlegm adhering to the fauces, causes it to pour out of the mouth, and arrests the stertorous breathing, caused by the phlegm in the throat, enables the patient to breathe easier, rouses him in some degree from the stupor, and enables him to swallow that, or other things. He had better swallow the mixture, however, until he vomits. It should be forced upon him until it does vomit, or act on the bowels. The whole tumbler full should be given in the space of ten or fifteen minutes, unless it vomits. A second tumbler full is sometimes necessary, but if it does not vomit, or cannot be got down, the white vitriol is the best remedy : a teaspoonful in a tumbler of water, half at one dose, and small portions afterwards. The salt, mustard, ipecac., etc., make the best remedy to begin with, because it is the best to loosen the phlegm, which is suffocating the patient ; it should be forced into the throat, by prizing the mouth open with a spoon, and into this spoon the mixture should be poured by another spoon ; when it falls down to the root of the tongue, it causes a heaving, strangling kind of motion to be made by the patient ; then, he should be turned a little on

his side, to enable the loosened phlegm to run out of the mouth, but soon replaced on his back again, with head a little elevated, to get more of the medicine. While this is doing, hot water, with mustard in it, should be poured, time after time, on his feet and hands, and a flannel shirt, wrung out of very hot water, doubled up in a large ball and wrapped in a dry flannel, should be applied over the stomach and bowels, and frequently renewed, as hot as the hands can bear it. A great deal of phlegm, a rosy white-of-egg looking substance, will be thrown up, and the patient will get relieved. Chamomile tea may be given to encourage the vomiting. If the head is hot and the face red, the head and face should be frequently wet with cold water. When the skin gets hot, and the pulse rises and face flushed, bleeding from the arm should be resorted to; but it is a very dangerous expedient in the opposite state of the system. After the vomiting, a twenty grain dose of calomel, floating on a spoonful of water, and a stimulating enema, to move the bowels, if they have not been already moved. The subsequent treatment consists of but little more than a light gruel diet, a little salts, and very small doses of sweet spirits of nitre, to act on the kidneys.

If the patient can be made vomit, he almost invariably regains his faculties directly. Some physicians have theoretical fears of vomiting; it never does mischief to the head in any case, except where there is great heat of the whole surface, strong circulation and flushed face; and not then, if the head be wet before and at the time of vomiting. In the state just mentioned, bleeding and vomiting at the same time do well together. Prompt action is as necessary in this complaint, as in any other kind of strangling or suffocation. The means to be used should be well fixed in the mind before hand, and all the means mentioned should be made act together at the proper time—the vomiting, the hot applications to extremities and stomach, and hot or cold to the head.

IV.—*Remarks on the existence of Typhoid Fever in Alabama.*

(Communicated to DR. J. C. HARRIS, of Wetumpka.) By C. J.

CLARK, M. D., of Jacksonville, Alabama.

MY DEAR DOCTOR:—As the existence of typhoid fever south, and especially in Alabama, is still considered by many as a question *sub judice*, I shall, in reply to your enquiries, give you a sketch of the disease, as witnessed by myself, in this part of the State. I do this, with the greater pleasure, as some hasty observations of mine, in relation to this fever, communicated to the late Dr. Lewis, of Mobile, excited, in a pointed manner, the critical acumen of Dr. Boling, in his review in the New Orleans Medical and Surgical Journal, of the former gentleman's production: And I would remark that whatever opinion physicians, at

a distance, may entertain, there is not one, so far as I know, out of nine or ten residing in this county, that does not recognize typhoid fever as occurring frequently, and prevailing, at times, to a considerable extent. All are familiar with it, from having treated it frequently. It is, in fact, the most troublesome disease that we have had to contend with, for several years past. Our intermittents and remittents are usually mild and manageable, while the typhoid fever is peculiarly obstinate and not unfrequently fatal. I have treated it here for the last ten years, and with the exception of one or two seasons, four fifths of the deaths from fevers have been from typhoid fever. It is all the fever our physicians dread to encounter, and from its frequent occurrence, has come to be recognized and distinguished, frequently, by many of the non-professional.

I have seen the disease in the hospitals of Louisville and Philadelphia, and had frequent opportunities of studying it, while connected with the medical department of the Army, in the cities and table-lands of Mexico. In the latter place, it is true, many of the army surgeons called it typhus; but I failed to discover any difference in the disease and that known, in the United States, as typhoid fever, and it was certainly very different from the contagious typhus, as described by the systematic writers.

I have stated that I had treated the disease here, for the last ten years. I drew up a minute description of it, embodying several cases, in a thesis, which was presented to the Faculty of the Louisville Medical Institute, for the degree of Doctor of Medicine, in the spring of 1842.

The first cases that came under my observation in this country, occurred in May, 1838, in the family of an inn-keeper in this village. These were three in number, one a young man twenty-one years of age, and the others a couple of boys, between the ages of seven and nine. The disease presenting some new features, differing essentially from our ordinary periodical fevers, a consultation of all the village faculty was called, consisting, at that time, of five physicians, and it was pronounced *typhus fever*, a name that was long applied to it, and perhaps still is, to some extent, in the New England States. In the succeeding autumn, there were a few cases in the county; and in 1839, commencing in February, there occurred seven cases in one family, within a mile of the village, in a situation free, as far as could be ascertained, from all the accredited causes of fever.

Again, in 1840, commencing in January, and running into March, I saw eleven cases in one family of negroes, being nearly one half, in a situation uniformly healthy, with the exception of this one visitation; and in August, September, and October of this year, the disease prevailed extensively, proving fatal in a great many instances.

In my letter to Dr. Lewis, speaking of the prevalence of this fever, in this year, (1840,) I said it attacked, "*indiscriminately: all ages, without regard to sex or color.*" This expression was carelessly made and put into that particular language rather to "round a period," than express accurately a fact. The idea intended to be conveyed was, that I

had seen typhoid fever occurring in children, adults, and old persons, in males and females, and that both blacks and whites, had been subject to it. This unfortunate sentence was quoted and requoted by Dr. Boling, to invalidate the writer's testimony as to the existence of typhoid fever in this part of the State, in a manner that might do well enough for a distressed critic, but not for the candid enquirer after truth.

Since 1840, not a year has passed without a greater or less number of cases, occurring usually late in the fall, during the winter, or early in the spring. In the autumnal months, the disease is frequently marked by the influence, whatever it may be, that gives periodicity to our intermittents, remittents and neuralgias, or the intermittents and remittents take on the typhoid type. At this season of the year, the shading from one form of fever into the other is so gentle, that in some cases the diagnosis is difficult. As the disease occurs in the winter months, and it is not uncommon, it is totally different from, and cannot, by possibility, be mistaken for, our periodical fevers—there could be no difficulty in distinguishing it from anything but true typhus. It has varied in different years and in different seasons of the same year, in many of its minor features, but in the whole has preserved its distinctive characteristics, as clear as any of the fevers, or other general diseases.

I am now treating the disease here, in Benton county, having five cases on hand, and having seen several others this fall. I have to-day conversed with two physicians from other parts of the county, and they both inform me that they have met with cases this fall.

Periodical fevers, intermittents and remittents, have been the prevailing diseases in this place and the vicinity, during the latter part of the summer and fall. I have had to treat a great many cases and found nearly all of them mild and manageable. Gentle emetics of ipecac. followed by such purgatives as calomel, rhubarb, blue mass, and castor oil, and the free use of *quinine*, has been sufficient to break them up. Many cases of remittent were broken up, in from one to three days, and no case lasted longer than the eighth or ninth day. Quinine, as we southern physicians all understand, is the great remedy in those fevers that have been called, by way of distinction, "periodical;" but it utterly fails in the genuine cases of typhoid.

Towards the middle of September, some of the remittents began to manifest more than usual obstinacy, showing a tendency, in the latter stages, to run into the *typhoid type*; and since then, I have met with several cases of typhoid fever that were clearly such *ab initio*. The cases I have alluded to, as under treatment at this time, are clearly distinct, and easily distinguished, from the intermittents and remittents of a few weeks previous. Besides these, my partner, Dr. J. C. Francis, and myself, have treated other cases this fall, that are now well or convalescent, and two that have died. Some of these cases, it is true, had something of the periodical type, for the first few days, and a few have preserved this type, to some extent, throughout the course of the disease, being evidently affected by the endemic influence that gives origin to our autumnal intermittents and remittents. This we know to be the case with our pleurisies, pneumonias, etc., some seasons; and it is not remarkable that it should exhibit itself in typhoid fever also; yet

in a large majority of cases of this fever, as it occurs here, the typhoid features have been so clearly marked, so distinct and predominant, that we have as little difficulty, ordinarily, in distinguishing it from our autumnal remittents, as we have in distinguishing the latter from the phlegmasiæ, or from an exantheme.

I will endeavor to give you sketches of some of the cases that have occurred this season. They will necessarily be imperfect and meagre, as the limits of this communication will not allow minute details.

Case 1.—J. D. H——, aged 48, by occupation a merchant. Is of rather spare habit, but has enjoyed excellent health for several years. Has recently undergone great fatigue in waiting on an only son who died three days ago, of scrofulous disease of the tibia. Has not had a good night's sleep for four weeks, having to be up so frequently of a night that he seldom pulled off his clothes. Suffered great anxiety for several days, on account of the condition of his son, and excessive anguish in consequence of his death. For about two weeks, has complained of feeling unwell, with head-ache and loss of appetite. Has been worried with a little hacking cough, and had chilly spells almost every day, with feverishness at night.

To-day, Sept. 23d, has felt creeping chills running over him all day. This evening had a rigor, his feet and hands remaining cold for a long time after his head and body had become hot. He was sitting on a chair when I first saw him, in the last described condition, his features greatly contracted, his countenance anxious. Pulse 120, small, corded and quick. Considerable nervous excitement, as evinced by his movements; partially delirious. He was put to bed, had a mustard foot-bath, and an emetic of ipecac followed by a cathartic of calomel and rhubarb. Had great difficulty in getting the emetic to operate, and it was only after taking some fifty or sixty grains of ipecac and a considerable quantity of camomile tea, that he did vomit. He made frequent attempts, but the abdominal muscles contracted so feebly and irregularly, the emesis was imperfect. He first drew my attention to this fact himself, and he complained frequently, afterwards, of an inability to evacuate his bowels, in consequence of a want of action in these muscles.

Upon examining his throat, the fauces, uvula and velum palati were found to be the seat of a bright red and angry looking inflammation. The inflammation terminated abruptly, the line limiting being well defined, but irregular.

I have seen several cases of erysipelas attacking the face and passing into the throat, and the inflammation, in this instance, resembled that occurring in such cases, more than ordinary sore throat.

Sept. 24th. The cathartic was followed by three or four rather fluid evacuations during the night and this morning. Had fever all night; was restless and excited, speaking quickly and in an altered tone of voice. countenance less anxious and less contracted; pulse 105, a little tense; head a little hot; mouth disposed to be dry.

This fever lasted fifteen days, his bowels became *tympanitic*, with distinct *gurgling upon pressure over the right iliac region*, and re-

maintained so until the termination of the fever. His pulse varied, at times, from 80 to 115, was never full and strong, but rather small, disposed to be tense, but easily compressible. The fever generally increased of an evening, or at night, and moderated towards morning; slight delirium several nights seldom complained of pain, but usually replied that he felt "pretty well," or was getting better. He became considerably better. He became considerably emaciated, but his strength remained good throughout, being able to get up and down, and to set for a few minutes on a chair. After the first few days, he had occasional perspirations, coming on with the exacerbations of his fever, but not terminating them. The character of his evacuations varied, being sometimes fluid or watery, and sometimes feculent and of a moderate consistence; they were of the latter kind, during the last few days of the fever. The inflammation in his throat proved to be peculiarly obstinate, resisting counter-irritants and a variety of gargles, and was only removed after the fever had disappeared. By the tenth day the febrile symptoms had moderated, and in the course of the next five or six days gradually disappeared *without any crisis or critical discharges*, and he convalesced slowly. I examined frequently, but discovered no typhoid eruption.

Case 2.—Charles, a negro boy, 18 years of age, the property of Mrs. Estill, living one mile from the village. Has always been a very stout, healthy boy; engaged in laboring on the farm up to the time of his attack; has never had any serious indisposition since his childhood, nor any particular exposure recently. After complaining of headache and being unwell for a few days, was taken, Oct. 14th, with slight coldness of the extremities, followed by fever. I saw him for the first time on the 15th. Considerable heat of the skin, especially about the forehead, neck, breast and abdomen, lower extremities less. Pulse 96, rather small and compressible. Complained of considerable pain in the back of the head; was rather restless and "fidgety." His eyes had a peculiar sparkling appearance; seemed easily excited, noticing and watching every thing that was said or transpired around him. Skin had been dry for some days. Marked pulsation of carotids and temporals. *Abdomen, tympanitic; gurgling sound produced by pressure over the right iliac region.* Had taken Cook's pills, which produced some *thin and watery evacuations*. I scarified and cupped the back of his neck and his temples, and prescribed sweet spirits of nitre, with nauseating doses of ipecac, to be given every hour, and the free use of cold applications to his head, while the fever lasted. Quinine, should there be an intermission.

3d day.—Charles' fever lasted all night. It subsided for a short time this morning, but rose again soon after taking a portion of quinine. This was discontinued, and the fever mixture and the cold applications were renewed.

The pain in the head and cerebral symptoms not being relieved, I bled him. *Before six ounces of blood had flown, his pulse failed, becoming very small and quick; his veins sunk*, and I had great difficulty in getting any more blood, though I had opened a good orifice. In a few minutes after lying down, his pulse was thumping away with about the same volume as before, at the rate of near a hundred beats to the

minute. Prescribed two portions of calomel, rhubarb and Dover's powder, to be taken at six hours. Continue fever mixture and cold applications. Warm foot-baths at bed time. Mucilaginous drinks.

Charles' fever continued to the 25th day without complete intermission, so far as could be ascertained by intelligent nurses, during the whole time. He could never be said to be perfectly free from fever. After the first week he began to have occasional sweats, especially about the head and neck. During these sweats, his pulse still maintained its frequency and quickness. The pain in the head and cerebral symptoms continued for about a week, during which time he was slightly delirious at night. His strength remained good, though he became considerably emaciated. His *bowels remained tympanitic* up to the 22d day, sometimes more so than at others; and I never failed to discover, by slight pressure, a distinct gurgling in the right iliac region. His dejections continued fluid, liquid, or watery, being sometimes changed temporarily by the remedies employed. After the first week he complained but little, usually saying he felt better, though his fever marched steadily on with irregular exacerbations and remissions. By the 25th day it had gradually subsided or "worn out," without any *crisis or critical discharges*. In the commencement, several attempts were made to cut short the fever with quinine, but these failing, it was discontinued. The treatment, after what has been mentioned, consisted, mainly, in blistering the nape of the neck, blistering and poulticing the abdomen, the use of gentle laxatives to open the bowels or opiate to restrain them as occasion required, an occasional dose of oil and spirits turpentine to remove the flatus, and dieting. Charcoal was given, and clysters of oil and turpentine administered also, to remove the tympanitic distention, with decided benefit.

Case 3.—My partner, Dr. J. C. Francis, was called, Oct. 7th, to see Jack, a large well grown negro man, 22 years of age, belonging to Mr. F. Snow, tanner of this place. Jack had been complaining, and as his Mistress said, had been "moping about" for more than two weeks before he got down. She also remarked, she did not think he had been "right in his mind," as he was uncommonly stupid, and would scarcely mind anything she said to him. He had now been confined to his room, and part of the time to his bed, for one week, during which period his owner, not thinking there was much the matter with him, had treated him with some purgative pills, and a dose or two of castor oil. He continued to have a "sort of slow fever," without any complete intermissions or great exacerbations; was delirious of nights, tongue red around the edges and tip, *abdomen tympanitic, gurgling upon pressure over the region of the cæcum*, with watery stools.

Jack was treated in a manner somewhat similar to Charles, except that he took quinine more perseveringly. At the end of about *three weeks* from the development of the fever, it had left him *without any marked crisis*, and he began to set up and to walk about, though evidently not well. At the end of the fourth week, Jack had *crept* down again, and was lying with fever, dry skin, *abdomen tympanitic, gurgling as before*, pulse quick, frequent, and compressible, a sort of stunned condition of his intellect, delirium at night, with a disposition

to get up and walk about; occasional coldness of the extremities coming on at irregular periods, and occasional sweats about the face and neck. He remained in something like this condition, being sometimes better and sometimes worse, for two weeks more. He was delirious every night, and frequently so in the day time. When delirious, it was difficult to keep him in the bed, as he was frequently attempting to get up. At one time, in the absence of his nurse, he got up, climbed out of a window eight or ten feet from the ground, scaled a high plank fence, and sat off in a run, down the hill. When caught, he seemed horribly frightened, and said some one was after him to kill him. From the end of the sixth week, he began to convalesce.

Case 4.—Jake, a negro man, aged about 45 years, belonging to Mr. R. D. Rowland, a farmer, two miles from Jacksonville, after complaining a few days, was taken, Oct. 2d, with a slight chill, followed by fever.

This fever lasted 17 or 18 days, in defiance of constant attention and careful treatment. There were tolerably regular remissions of a morning, but no intermission, and nothing in the whole course of the disease that could be called a crisis; and it was difficult to say exactly at what time the fever had terminated. During the whole time his *abdomen* was *meteorized*, sometimes slightly, sometimes considerably, and the *gurgling* was easily produced by pressure. His skin remained dry for several days, but in the latter stages he had partial perspiration. His tongue became red around the tip and edges. He had but little thirst, and no appetite. He never had any delirium or restlessness, but was low spirited and desponding, though he seldom complained of pain or suffering. Thirty four days from the attack, he was convalescing, but slowly.

Mr. R. has 75 or 80 negroes on his plantation. A great many of them had suffered from intermittent and remittent fever in August and September, and there were still some cases at the time of Jake's attack. These had yielded readily to quinine, and was accordingly administered to him, but without effect.

Case 5.—On the fourteenth day after Jake was taken, and while attending him, I was requested to examine case 5th. Jarret, a negro man, aged 22, who *slept every night in the same room* with the former. The nurse said he had been "moping about" for a few days, complaining of his head, but that she did not believe that there was much the matter with him. I found him with fever; skin hot about the head, neck and body; lower extremities less so; pulse 90, quick, easily compressed; said he had pain "all through his head;" temporal arteries full and throbbing; tongue heavily coated, slightly red at tip and edges; abdomen slightly *meteorized*, but no *gurgling* on pressure.

Jarret's fever progressed slowly *without intermission or crisis*, being generally a little higher at night than of a morning. He had no violent symptoms, and ceased to complain of his head after a few days. He continued to be stupid and dull, answering in monosyllables when questioned. The *meteorism increased*, and the *gurgling became very distinct*. His stools were loose and watery though he had no decided diarrhœa. By the 12th day he began to set up and to eat, his fever having in a measure subsided.

I saw no more of him for a few days. On the 17th day my partner, Dr. Francis, saw him. He had now relapsed. The nurse said he "had never been right," but had been "poking about" and "talking like he hadn't any sense." He had evidently never been well.

He was now delirious night and day, constantly trying to get up and leave the room. Had to be watched constantly, and at times to be held in the bed. His abdomen was tympanitic, his stools liquid; pulse rapid and small, and extremities cold; passed feces and urine in the bed, without being conscious of it; countenance looked vacant and devoid of intellect. It was with difficulty he could be induced to open his mouth and protrude his tongue. When he had done this, he kept them so, and it required as much effort to get him to withdraw his tongue and shut his mouth. Tried sometimes to bite his attendants. Died on the 22d day of disease.

Post mortem examination. The corpse was opened, eighteen hours after death, in the presence of Drs. J. C. Francis and C. C. Porter. Body moderately emaciated.

Head.—Veins of the pia mater greatly distended, forming a beautiful reticulated net work over the substance of the brain. Great sinuses engorged with black blood. No effusion between the membranes. Slight injection of the cortical substance. Half an ounce of clear serous fluid found in the right lateral ventricle, and about two fluid drachms in the left. With these exceptions, nothing unnatural presented itself in the cavity of the cranium. The medulla spinalis was not examined.

Thorax.—Lungs so collapsed as to fill but about half the space destined for them. No unnatural adhesions; each organ in its proper position. No effusion into the cavity of the pleura. Substance of the lungs presented no lesion except the ordinary hypostatic engorgement. Heart of ordinary size, and healthy in every respect. It contained a considerable polypus formation, such as occur in *articulo mortis*. The great vessels presented nothing unnatural.

Abdomen.—The exterior surface of the ilium, for three feet or more, was of a dark red color; the shade was lighter in some places, and became quite dark in certain spots. The mesentery attached to this portion of the intestine had the same color, while its veins were greatly distended. Upon spreading it out, numerous clusters of enlarged mesenteric glands were displayed, corresponding to the dark colored spots on the ilium. Besides these clusters, numerous single glands were to be seen; several were nearly as large as a partridge egg—a much larger number varying from that size down to a small pea. Upon cutting into these glands, they were found firm and of a deep red color. Several were cut, but none found softened; over a few the peritoneal coat was softened and of a yellowish white color, giving way easily when scraped by the point of the scalpel, but the body of the gland remained firm and of a rose color.

The intestines were now removed, washed and laid open. Commencing at the iliocecal valve, for three feet and a half upwards, the inner surface of the intestine presented numerous elliptical, raised, and

ragged ulcerations: the larger of these, to the number of eight, were spread along from one of the above mentioned points to the other, and corresponded to the dark colored spots on the exterior, before mentioned. The first, and largest one of all, measured two inches and three quarters in its greatest diameter, by one and a half in breadth; the ulcer resting its lower end on the base of the ilioæcal valve and extending itself along the gut. The next largest ulcer was situated eight inches from the ilioæcal valve, its longest diameter measuring 2 6-16 inches; its short 1-2 inches. The third was 14, the fourth 15, the fifth 18, the sixth 54, the seventh 29, and the last 43 inches from the same point. These measurements were made, for the sake of precision, with a carpenter's rule. Nearly all these larger ulcerations were of an elliptical shape, some being more so than others,—all had elevated or thickened bases. The largest one, near the ilioæcal valve, had apparently commenced cicatrizing. In several, the mucous coat was softened and broken down, and most of them were covered, to some extent, with a yellowish white substance, having something of the appearance of *bee-bread*, produced, perhaps, by the disintegration of the parts, and resembling those yellowish brown particles seen in the stools of some patients laboring under typhoid fever. Might the presence of such matter in the stools, be taken as evidence of the existence of these ulcerations in the bowels?

Between the large ulcers were numerous points of ulceration. In a space of about three inches, between the first and second large ulcers, I counted twenty-one thickened and elevated points or pimples, some ulcerated at the apex, others not, giving to the surface of the gut the appearance of having been pustulated with tartar emetic. The ilioæcal valve itself was studded with small ulcers.

Stomach.—The mucous membrane was softened, scraping off easily, near the pyloric orifice.

Spleen.—Enlarged to twice the natural size, engorged with black blood, very soft, the structure breaking up, by slight pressure, between the fingers.

Liver.—Gall-bladder greatly distended with yellowish bile, extended two inches beyond the edge of the liver. The liver itself presented no lesion whatever.

The rest of the abdominal organs were normal.

In drawing up these cases, I have endeavored to seize on their prominent features only; as a minute detail of all the symptoms from day to day, through such long periods, would require too much space. The treatment has been omitted, in a great measure, for the same reason. They will, perhaps, serve as an imperfect picture of the disease, as it exists in this community at present.

You ask, "What symptoms do you rely on during life, as diagnostic of this fever?"

It is impossible to rely on any one or any two symptoms, as Dr. Bartlett has well shown; but not more so than in remittent or yellow fever. We must take an assemblage of symptoms and circumstances.

Who would undertake to diagnose a case of common autumnal

remittent, from one or two symptoms? What symptoms are diagnostic of that disease? No one, two, or three; but an assemblage of symptoms, and a history of the case from the commencement to the termination, are necessary to make the diagnosis clear and satisfactory, and present a picture of the disease. And yet every one is familiar with this fever, and no one doubts its existence.

Definitions are difficult things frequently, and especially so in fevers, of the essential nature of which we are so completely ignorant.

As to symptoms, then, in typhoid fever, we must rely on its *tout ensemble*, its physiognomy as a whole, and no one isolated feature. There is no one symptom that I have not seen absent in some case, and there is but one lesion that is considered as being uniformly present.

In case 2d, the patient was taken with a chill, followed by fever, pain in the head that terminated by the end of the first week; pulse ranging near 100, quick and compressible; abdomen tympanitic, with gurgling upon pressure over the right iliac region; watery stools; the fever running on for twenty-five days, with slight exacerbations of an evening, and remissions of a morning, and disappearing gradually or "wearing out," without any marked crises or critical discharges.

The history of this case, and this assemblage of symptoms, are sufficient for me "to rely on during life," as diagnostic of typhoid fever.

Again, in case 3, we have a negro man twenty-two years of age, after complaining some two weeks, was taken with a low grade of fever, which marched regularly on for about three weeks; with slight exacerbations and remissions; delirium at night; tongue red at tip and edges; abdomen tympanitic, with gurgling upon pressure over the cæcum, and watery stools. After temporary amendment, his fever returns, with a renewal of the above symptoms; a stunned condition of the intellect; frequent delirium, especially at night; a disposition to get up and walk about, or to escape from the room; and the case is protracted to the sixth week, terminating gradually without crisis.

In case 4th, after the usual prodromata, a negro man, aged forty-five, is taken with a chill, followed by a fever, that, with slight evening exacerbations and remissions of a morning, lasted seventeen days, subsiding gradually without crisis. During this time his tongue is red at the tip and edges; loss of appetite; despondency; skin dry for several days, then partial perspirations; abdomen metcorized, gurgling upon pressure in the right iliac region.

The collection of symptoms etc, in either of these cases, is sufficient to mark the typhoid fever.

You enquire for post mortem lesions. This is the fashion now-a-days, and few observations are considered of value, without they are verified by post mortem examinations. Suppose I should ask what lesions you find after death, in intermittent and remittent fevers, what would be your answer? Could a simple case of the former be examined after few days continuance, there would be no appreciable alteration except in the distribution of the blood among the organs, and vessels—no change of structure—no breach of continuity.

In the latter, we find various anatomical lesions, but no one invariable, if we except the *bronzed liver*, and this is very questionable. Yet no one doubts the existence of these fevers in Alabama.

Fortunately, owing to the labors of Louis, the post mortem lesions in typhoid fever are better ascertained than in any other fever, and though not unvarying as to several organs, are sufficiently so with regard to the elliptical plates of the ilium, to mark this disease in a peculiar manner. Case 5 presents the ordinary lesions of typhoid fever, in its simplest form. Leaving out the lesions in the cranium, which are not peculiar to this disease, though they may have played a very important part in the death of the patient, we have in the abdomen, *softening of the mucous membrane of the stomach, enlargement and softening of the spleen, enlarged mesenteric glands*, and, above all *thickening, softening and ulceration of the elliptical plates*, while there is an entire absence of lesions peculiar to other affections, and sufficient to account for the symptoms, course, and termination of the disease.

If this is not typhoid fever, what is it? It is not intermittent or remittent fever, or *el vomito*; and I am sure it is not the cholera! !

These are some of the symptoms and post mortem lesions of the disease we have been treating here for several years, at first under the name of typhus, and subsequently under that of typhoid fever.

I am my Dear Sir etc.

V.—REMARKS upon *Iritis*, with cases and observations illustrating the treatment of that affection. By THOMAS PENISTON, M. D., New Orleans.

[Continued from the July Number, 1849.]

Case 4.—*Traumatic Iritis*. On the 29th September; 1846, I. V., a young man, aged 24, of good constitution, sanguine temperament, received from the accidental explosion of a percussion cap, while on a hunting excursion, a wound in the right cornea. It occasioned but slight pain at the time. I saw him on the following evening, about twenty-four hours after the accident. The eye then appeared evidently more prominent than the well one. The patient keeps it about half closed to avoid the pain, from exposure to light. The eye is injected generally; but more particularly around the margin of the cornea. The wound, through which still issues a small quantity of the humors of the eye, is of a crescent shape, (—) and about three lines in length; extending from near the centre of the cornea towards the nose. The iris, of a light brown, is a shade or so darker than the other. The pupil is sluggish and slightly contracted; flow of tears abundant; no foreign body could be detected in the interior of the eye.

Prescription, venesection 16 oz., compresses rung out of cold water,

to be kept constantly applied to the eye, occasional instillations of the aqueous solution of belladonna between the lids.

30th Sept. Has passed a bad night; complaining this morning of an aching in the eye and forehead. The eye is more prominent than yesterday. A number of large blood vessels are seen distending the conjunctival and sclerotic coats. The vascular zone, so minutely described by Siehel and others, as characteristic of this affection, is here beautifully marked: The vessels succeed each other, with the regularity of penciling, terminating on one side, abruptly, at the edge of the cornea, and on the other, gradually losing themselves in the general redness of the globe. The cornea is transparent. The wound appears to be healing. The iris is darker than yesterday, and is visibly thickened towards its pupillary margin. The pupil is contracted to a mere point, and is entirely insensible to light. This alarming progress of the disease, notwithstanding the copious depletion, led me to again examine the interior of the eye with more care. Assisted by a good lens, I finally succeeded, in detecting a small shining particle, apparently imbedded in the substance of the iris, which I immediately proceeded to extract. This I accomplished with a pair of fine forceps, after having previously enlarged the wound already existing; sufficiently to admit their free introduction. It was found so firmly implanted, that it required some effort on my part to seize and withdraw it. It weighed nearly a grain.

The patient was again bled freely, and ordered to continue the cold applications and belladonna, until the heat and redness entirely disappeared. The eye rapidly improved under this treatment, and two weeks after, no traces of the accident, or its consequences on so delicate an organ, were visible.

Case 5th.—*Traumatic Iritis.* J. D. an Italian, aged 68, of good constitution, robust and active for a man of his age, was operated on for cataract in the left eye, by couching, on the 5th June, 1817. The operation offered nothing remarkable. The degree of vision obtained was satisfactory. The patient did well until the 10th, when he complained of a slight pain in the orbit of the operated eye. The organ appeared somewhat injected, though not more so than is usual in favorable cases, a few days after the operation of cataract. On examining the interior, I found that the crystalline had risen up, and that it occupied nearly a half of the field of vision; its upper edge, turned towards the anterior chamber, rested on the inferior pupillary border of the iris. The pupil was regular—the iris apparently healthy. As the only hope of vision remained in this eye, the other being irretrievably lost, I determined, notwithstanding the injected state of the external coats, to operate at once. This view was also taken of the case, by my friend Dr. Daret, then present, who had kindly assisted me in the former operation. The operation was accordingly performed on the following morning (June 11th). It consisted, in at first attempting to break up the cataract, which was speedily abandoned; its consistence being such, (that of softened glue,) that having introduced the needle into it, it was with the greatest difficulty that I succeeded in extricating it. I then depressed it in the usual manner, but found that as soon as I re-

moved the needle, it again returned to its former position. Bringing the point of the needle forward towards the iris, with a view of breaking up the adhesions, I perceived that not only a part of the capsule yet remained, but that the whole of the anterior of it was entire, constituting a secondary capsulo-lenticular cataract. Its opacity was so inconsiderable, that it appeared a scarcely distinguishable film just behind the iris. It is needless to say, the remains of the capsule, being effectually broken up and removed, the crystalline retained its position at the bottom of the eye.

The patient remarked that he saw much better than he did after the first operation. On removing the dressings, on the third day, I found the eye in a very satisfactory condition—the pupil free and active—degree of vision good.

Being under the necessity of absenting myself, for a few days, from the city, I did not again see the patient until the 23d June. My presence being then required, I found the eye in the following condition: intense inflammation of conjunctiva and sclerotica, only a small portion of the cornea is transparent; the balace is nebulous, from the deposition of lymph between its layers. There appears, as far as the state of the cornea will permit me to judge, almost entire occlusion of the pupil. The patient says that he can distinguish light from darkness, though he is unable to see the passage of an object as large as a hat before the eye. A slight effusion of bloody lymph exists in the anterior chamber. The iris appears swollen, and protrudes into the anterior chamber. On enquiry, I learned that on the second day after my departure, he became impatient at being kept in a dark room, had the curtains removed, and committed other acts of imprudence, thereby bringing on iritis, and subsequently general inflammation of the eye. Moreover, being an ignorant man, he had permitted himself to be duped by a quack, who, for a specific amount in advance, was to restore both eyes, one of which had been lost to him for more than thirty eight years.

Prescription—Venesection 16 oz.; ex. of belladonna, ℥j; calomel ℥j; make into twenty pills, one to be taken every three hours.

This treatment was continued until the constitutional effects of the mercury were produced, which was immediately succeeded by an amelioration in the state of the organ, and of the absorption of the lymph in the anterior chamber, and between the layers of the cornea. The delicate structure of the iris, however, was not so speedily reclaimed: the deposition of plastic lymph on its surface was so great, that its original color of a light blue was changed to that of a dirty yellow, and its contractility almost entirely lost. Vision, however, notwithstanding these adverse circumstances, is yet sufficient for the ordinary purposes of life; permitting the old man to move, without danger or inconvenience, along the crowded thoroughfares of our city.

Case 6.—*Traumatic Iritis*. A negro man, aged about 70, subject to rheumatic pains, and otherwise decrepid, was operated on for cataract in the left eye, on the 29th March last. The operation consisted in couching, and offered nothing worthy of note. The patient being in good condition, no subsequent treatment was judged necessary, with the exception of a dose of salts the day after the operation. The eye

was examined three days after, and found to be entirely free from inflammation. The patient continued to do so well, that on the 10th I permitted him to quit his room, and go down in the yard, where he spent a part of the forenoon.

4th April.—Patient says that he suffered some last night from pain in the head. The eye appears slightly injected, partially around the cornea. Some flow of tears and pain on exposure to light; iris dull and sluggish.

Prescription: venesection, 12 oz.; cold applications to eye.

5th. Complains a good deal of his head and eye; iris is losing its brilliancy, and is slightly contracted; pupil regular; can not bear the least contact of light; pulse 98; skin warm, particularly about the forehead.

Prescription: Venesection, *ad deliquium*; continue cold applications.

6th. Has passed a bad night. The eye is intensely red this morning; iris is small, and protrudes into the anterior chamber; profuse flow of tears; intolerance of light not quite so great as yesterday. The cornea is hazy, particularly towards its most dependant part; slight effusion of lymph and blood into the anterior chamber (hypopion); pulse 100; skin warm.

Prescription: Fifteen leeches to left temple; compresses wrung out of an infusion of belladonna leaves applied to the eye.

7th. About as yesterday; hypopion has increased; pain in the globe of the eye intense.

Prescription: Two grains of calomel and one of extract of belladonna; to be taken every four hours. This treatment was continued until the gums were slightly touched. All the symptoms of inflammation gradually disappeared, together with the effusion of lymph, which was rapidly absorbed. This state of things continued for six or eight days, when the disease returned with its former intensity, again to disappear by the use of the same means. This took place no less than six times, when I concluded to keep the system under the influence of mercury, until the inflammatory disposition or tendency should disappear, or wear itself out. The use of the remedy was continued for some weeks after the last attack, leaving the pupil irregular, and the degree of vision slightly impaired.

VI.—*Osteo-Sarcoma*.—*Professor Mott and Dr. McCreary*. By JAMES H. JOHNSON, M. D., of New Orleans, late Professor of Surgery in Franklin Medical College of Missouri.

In the "American Journal of Medical Sciences" for November, 1828, a case of osteo-sarcoma of the clavicle, in which excision of that bone was successfully performed by Dr. Mott, is reported. This Dr. Mott claims as the first operation of the kind ever attempted or per-

formed, and he asserts, is the most difficult and dangerous known in the history of ancient or modern surgery.

The learned professor is justly entitled to the approbation of the profession, on account of his fearless use of the knife, as well as his astute diagnostic knowledge; but as wide spread as may be his fame and reputation, I doubt not this paper may change public opinion, in reference, at least, to priority of practice. I know the doctor is too liberal and equitably just, to envy or snatch an honor from an humble individual, residing in the wilds of the great South West, consequently, will kindly submit to a statement of facts.

The first operation of exsection of the clavicle, for osteo-sarcoma, was performed on the 4th day of May, 1811, in Hartford, Kentucky, by Dr. Charles McCrearry. The appliances used for surgical and mechanical skill, at that early period of pioneer life, were not equal to modern instruments, at least, for a delicate, splendid, and critical operation.

The method adopted by Dr. McCrearry, was almost similar to Professor Mott's, and would admirably serve as a guide to future surgeons, upon which they could elaborate. The object here is not to censure Dr. Mott, but to place Dr. McCrearry in his proper position before the medical world. Dr. Mott may never have heard of a similar case, yet "facts are stubborn things," and "do justice to all and fear none," is an adage which should be adopted by the profession. The capital of a physician or surgeon does not depend upon the number of pieces of coin he may have in his pocket, but, strictly, is an intellectual investment, upon which frequently no interest is paid, save the mental gratification of doing good, soothing the sorrows of the widow and the orphan, and stilling anguish—the effects of poverty, wretchedness, and, consequently, diseased action.

I have ventured, says Professor Mott, (page 64, *Travels*), "*to call the exsection of the clavicle for osteo sarcoma, my Waterloo Operation.*" Certainly a self paid compliment. As a rejoinder, and in behalf of the memory of McCrearry, I shall call his original operation, the "*Thames.*" Dr. Mott's is an imported name; the other is identified with our country, our history, and our western skill, and which form a part of the history of American surgery; at least, when such men as McCrearry was in the field of active usefulness, during the last Anglo-Saxon war. Dr. Mott says, (page 104, *Travels*), "*My operation for osteo sarcoma, I claim for my country, my city, and myself*"; but I claim for the Western Valley, for historic truth, and for McCrearry and the profession, that the "*Thames*" was the great original operation and victory—one which, before, never was known or practised. The midnight student may look in vain for a precedent, even among the archives of the Old World.

Dr. Mott, for years, has worn the "tri-cornered chapeau" of surgical fame; yet although his hat may be "*the identical one*" worn by the Napoleon of the knife, in France, (Larrey), it fits equally well on the pericranium, reputation, and dignity of McCrearry, whose name should be emblazoned as one among the first western chirurgians.

Well knowing, from considerable experience, the fatherly anxiety

which naturally attaches to all improvements or innovations in practice, I am induced, and wish to lend my aid, to restore to its pristine glory and its proper parents, the lost—but not forgotten offspring of the mind. It is a duty we owe to society and to the Science of Physic,

VII.—REMARKS *upon Epidemic Cholera, more especially in reference to the treatment proper for its different stages.* By EDWARD JENNER COXE, M. D., New Orleans.

CHOLERA, whether sporadic or epidemic, always meriting particular attention, possesses at this time still greater interest, from having visited, within the last twelve months, almost every section of the United States, as, also, a great part of Europe.

Its sudden and mysterious approach, its epidemic character, its occasional great mortality, and the general, though unnecessary panic resulting therefrom, render it the duty of each member of the profession, to contribute his mite respecting the plan of treatment which in his hands may have proved successful. Notwithstanding the many excellent publications issued during, and subsequent to its first visitation as an epidemic, the communications in the medical journals of the present day display no less contrariety of proceeding, as regards the treatment, than existed during its first passage over the world.

With few exceptions, no particular system or course of treatment, has been laid down for the respective well-marked stages of the disease, based upon certain indications, deduced from the probable cause, though well marked consecutive effects.

Without presuming to have arrived at any positive certainty, upon so important a point, I have ventured to offer a few suggestions, previously to noticing the symptoms and mode of treatment evidently called for by the existing symptoms of the different stages of the disease.

As heretofore, the cause of epidemic cholera remains a profound secret, and although many theoretical opinions have been promulgated to account for it, the only adequate and intelligible one, in my opinion, is that proceeding upon assumption, after all, of its being dependant upon an invisible and inscrutable ærial poisonous principle, involving, to a greater or less extent, every portion of the body, though primarily and principally expending its influence upon the great nervous system, and indirectly or secondarily, through its all powerful agency upon the circulatory, hepatic, respiratory, and other organs.

The great tendency to a general depression of the powers of life, manifested first in the capillaries, then in the larger vessels and heart, with a consequent congestion of an impure blood in the internal organs and tissues, are some of the immediate and prominent effects of the invisible cause. The morbid condition of the blood, the absence of

the biliary secretion, the decrease or suppression of urine, no less than the other changes observed, must be regarded as effects produced by functional derangement of one or more important organs, resulting from this poison.

A negative proof of the existence of some powerful unknown cause in the production of epidemic cholera, is found in the fact, that in ordinary seasons, the most violent attacks of disease of those organs, acknowledged in cholera to be implicated, do not produce the same character or train of symptoms, though occasionally, one or more of the characteristic symptoms of epidemic or Asiatic cholera have been noticed in that of a sporadic character.

Among the numerous predisposing causes of this disease, previous to, or during its existence, the following may particularly be noticed: Living in low damp localities; food, whether in excess or from its quality, possessing a tendency to occasion a derangement of the digestive organs; the use of intoxicating drinks, great anxiety of mind or fear, exposure to the rays of the sun; undue fatigue; raw, damp, rainy weather; sudden change from warmth to cold; inattention to cleanliness of person and proper clothing.

During the prevalence of this epidemic, it is important to remember, that one of the primary effects of the general cause is an enfeebling of the powers of the digestive organs, and as a consequence, generally observed, many of the ordinary articles of diet can not be readily digested; therefore, comparatively slight errors of diet can and do produce a depression of the healthy powers of the stomach, rendering the system more accessible to external impressions. The question of the contagiousness of this disease, it is unnecessary to dwell upon at length, but believing firmly in its non-contagious character, I cannot refrain from noticing the following conclusive evidence from the report of Drs. Bell and Condie to the college of Physicians, of Philadelphia, in 1833. They remark: Perhaps we could not cite a stronger example of the difficulty of explaining, by any known law of transmission, or order of succession, an attack of cholera, than its sudden appearance in the heart of Paris, the first city in France to suffer from the pestilence." In connection with this historical fact, Drs. B. and C., after noticing in detail the precise time and manner of appearance of the first case of cholera in most of the cities of Europe, during its first visitation, conclude thus: These several facts concur to authorize the positive conclusion, that, *non intercourse* between places actually ravaged by cholera, and places still exempt from the disease, however rigidly enforced, can give no certainty, nor even any well grounded hope of protection for those latter. The promised benefit from such restrictive measures has not been obtained, while the inconveniences and sufferings caused by them have become too manifest."

Were it in the power of any government to prevent the appearance of this disease, by any system of quarantine, unquestionably attainable, if contagious, all Italy should have been exempt, for there, the most rigid military cordons sanitaires failed entirely in arresting the progress, or preventing the approach of cholera.

Strongly corroborative of the above position, is the fact, that of the large

number of physicians throughout the world, constantly engaged at the bed-side, fatigued in body and mind, and occupied for hours in post mortem examinations, the hands imbued with the contents of all parts of the body, and inhaling whatever could exist of a poisonous character, comparatively few contracted the disease, or were compelled to cease from their labors.

The following facts and remarks upon the capriciousness of cholera, in the Valley of the Mississippi, as peculiarly apposite to the subject, are taken from the Cincinnati Gazette.

"The cholera has now swept over the entire extent of the Mississippi Valley, as an epidemic, and spent its force at nearly all important points. Its deadliest ravages have been at New Orleans, St. Louis, Quincy, Nashville, Lexington, Cincinnati, Sandusky City, Lafayette, and Buffalo. Of towns and cities of considerable size that have been visited by it, it has fallen most lightly upon Mobile, Natchez, Vicksburgh, Louisville, Wheeling, Detroit, Cleveland, Columbus and Pittsburgh. The small towns in which it has raged worst, are Bellville in Illinois; Lebanon in Tennessee; Paris and Richmond in Kentucky; Aurora, Boston and Napoleon in Indiana; and Eaton, Vandalia and Minster, in Ohio. Places that have suffered a good deal and yet cannot be classed among the worst, are Chicago, Alton and Peoria in Illinois; Memphis and Clarkesville in Tennessee; Maysville in Kentucky; Richmond in Indiana; Xenia, Dayton, Springfield and Batavia in Ohio. "The Coast" of Louisiana has also suffered a great deal, from first to last, 10 to 25 per cent. of the slaves being carried off by the disease, on some of the principal plantations. Places of considerable size which have either nearly or altogether escaped the visitation of the pestilence, are Jackson in Mississippi; Little Rock in Arkansas; Huntsville, Tuscaloosa and Florence in Alabama; Knoxville in Tennessee; Glasgow, Shelbyville, Georgetown, in Kentucky; Cairo and Springfield in Illinois; New Albany, Madison and Indianapolis in Indiana; and Zanesville, Steubenville, Marietta, Chillicothe, Hamilton and Ross-ville in Ohio.

Here, now, are singular facts, plainly showing the mysterious and capricious character of this dreadful disease. It appears here, there, elsewhere, suddenly, and often giving no warning, without reference to lines of travel, regardless of natural water-courses, wholly independent of the direction of prevailing winds, and uncontrolled by the topographical character or geological formation of the districts within its general course. Spending itself where it lights first, either gently or ferociously, it disappears, and while neighboring points are standing in awe of its proximity, and daily expecting its desolating presence, it suddenly appears in altogether another region, a hundred or two or three hundred miles away. And again, two or three weeks or two or three months afterwards, while those who seemed to have escaped are still warm in their congratulations of each other, and are beginning to talk and to write about the superior healthfulness of their towns, the destroyer retraces its steps, strikes at their best and their worst, their strong and their feeble alike, and carries mourning to nearly every household.

This is the manner in which the cholera appeared and disappeared, in the course of its march over the Mississippi Valley. For weeks it is at New Orleans, and does not appear at Natchez or Vicksburg or Memphis, although the inter-communication is incessant. For even *months* it is in that city, and does not appear in Mobile at all, except in the instances of three or four persons, who come home with the disease developed in their systems, and die of it. It appears at St. Louis, and scourges that city as no other American city has been scourged; and yet, for the space of five months, the city of Alton, a few hours travel above on the same river, and in daily, we may say hourly communication, does not feel its presence in a single case. Then Alton is stricken, and in a fortnight many of her best citizens are borne to the grave, while the vile look on and escape. It leaps to Cincinnati, moving over hundreds of miles of populated country in a direct line, and passing by many towns and cities on the water line of travel, and for two months subjects us to its terrible ravages, carrying off thousands of our people. Yet while this is going on, a populous city, but little more than a hundred miles from us, nearly altogether escapes its presence, and many smaller towns, not half that distance, remain wholly exempt from its visitation. Then it leaps 60 miles north to Dayton, a city of 12,000 to 14,000 inhabitants, and 80 miles south to Lexington, a city of 7,000 to 8,000, and fills their cemeteries with new made graves, while the intermediate towns, with their populations of 1,000 to 5,000 each, experience entire immunity. In the rural districts, too, the same capriciousness is shown. In some counties almost every town of from 100 to 300 inhabitants has witnessed the presence and the ravages of the disease, while in adjoining counties even its breath has not been felt.

And now having moved thus capriciously from one extreme to the other of this Great Valley, it threatens to return upon its track, and wrap in darkness and desolation the places that till now it has spared. This, indeed, is what it has already to some extent done, in so recently striking Lebanon in Tennessee, and Harrodsburgh in Kentucky, and Springfield in Ohio, and Birmingham near Pittsburgh, and some other places near which it showed itself a month or two ago, and from whose vicinity it had almost entirely disappeared for weeks.

Truly is this the pestilence that walketh in darkness, and wasteth at noonday, by which of two men working in a field the one is taken and the other left, and of two women grinding at the mill, the one is taken and the other left."

The possibility of preventing an attack of this disease, is of sufficient importance to merit a few remarks.

It may be confidently asserted that the only possible means of accomplishing this desirable object consists, 1st. In the strict avoidance of all causes calculated to diminish the energies of the system, as excess in eating or drinking, abandoning for the time, all articles of food generally admitted to possess the power of producing relaxation of the bowels, thereby impairing digestion.

2d. Observe cleanliness of the body, house and premises, dress more warmly than usual, avoid sudden changes of, or exposure in, raw, damp

and chilly weather, more especially if in a state of perspiration; and unless in active exercise, do not remain longer than possible in damp or wet clothes.

3d. As long as every organ of the body gives evidence of performing its functions healthily, avoid resorting to any medicine whatever, in the fallacious hope of forcing a continuance of the same. Such a course must be always productive of harm.

The only certain preventives consist in sobriety, plain nutritious food, avoiding all acid fruits, and uncooked fruits, and vegetables, attention to personal cleanliness, free ventilation, regular exercise, calmness of mind, and the daily morning and evening use of the sponge or shower bath, followed by friction of the whole body with a coarse towel or flesh brush.

It may be laid down as an axiom, that all food known to favor a relaxed state of the bowels, or that is not, in general, easily digested, should be carefully avoided; for, as a consequence of the peculiar condition of the atmosphere, many articles of diet commonly reputed wholesome and digestible, may, and very frequently do, prove injurious. It is the mark of prudence to observe and act according to these facts.

Certain articles of diet should be scrupulously avoided, as green vegetables, raw or cooked, pickles, salted or smoked meats, fresh pork, salted or shell fish, cider and all acid drinks.

Potatoes, well cooked, roasted or boiled, are generally easy of digestion; but if baked or badly boiled, heavy and sodden, there can be no doubt of their dangerous tendency.

Moderation in eating and drinking, during the existence of cholera, will prevent the digestive organs being overtaxed, thereby removing one of the most frequent and common causes of an attack.

Although occasional exceptions may occur, it is proper, as a general rule, that the diet be of a more solid character than usual, and consist principally of meat, rice and other farinaceous articles, with spices, such being more invigorating, and containing, in a smaller bulk, an equal, if not greater, amount of nourishment. The experience of every one must, however, upon so important a point, be brought into requisition, though a strict observance of the above will place all upon the safe side.

The experience afforded upon a large scale, resulting from allowing the garrison of Genoa, nearly 10,000 men, a better character of food, during the prevalence of cholera in that city in 1835, proves, incontestibly the power of preventing the spread of this disease among so large a body of individuals, by habits and customs otherwise predisposed to an attack.

Having been instrumental in effecting a change of diet, a strict avoidance of fruit and vegetables, a change of dress from summer to winter uniform, as well as an exemption from unnecessary parades, which resulted so favorably, and having been called upon by a body of superior officers to receive their thanks for the interest and exertions manifested, and the benefits acknowledged to have been received, I think I have a right to insist upon the positive advantages that will result to every community, by a strict attention to diet and other hygienic measures.

But for the positive bearing of such vital truths upon a subject involving life or death, sickness or health, I should not have alluded to my residence, with my family, in the city of Genoa, during the entire period of the existence of the epidemic in that city.

Two general well established facts, in reference to epidemic cholera, have been conclusively proved by the testimony of the vast majority of the profession, in every section of the globe, that cannot be too extensively known or strenuously insisted upon.

1st, That when this disease is attacked in its first or forming stage, it is properly to be regarded as of easy management. 2d, If these first symptoms are neglected, under the erroneous, though common, impression, that they are too slight to merit care or attention, the lapse of a few hours may show, as has frequently been the case, that false confidence and delay have been unwisely calculated upon.

Symptoms and Treatment.

The existence of three distinct stages of this disease, has been generally acknowledged, though by a few, there has been made a fourth, or that of the consecutive fever or reaction, subsequent to, but not necessarily following the third stage, or that of collapse.

Symptoms of the first stage, generally called the Premonitory symptoms.

It may not be unnecessary to remark, considering the apparent mildness of many of these symptoms, that during the prevalence of epidemic cholera, any departure from the ordinary healthy condition of the body merits attention, though it by no means follows, notwithstanding the assertions and opinions of some physicians, that active medication should be immediately resorted to; for very frequently I have found repose, with some mild spicey ptisan, as clove, ginger or cinnamon, all sufficient. The symptoms most usually observed, are, lassitude, slight uneasiness in the stomach and bowels, a furred tongue, a dull heavy sensation in the head, soreness of the eyeballs, slight spasmodic pains in the muscles of the extremities; nausea, or sickness of the stomach, though not frequent, is present at times. The bowels are more or less frequently moved, the discharges being generally thin or watery, at first of a dark color, often containing bilious matter. In proportion as the discharges increase in frequency, they lose their natural appearance, resembling, first, dirty water, and gradually running into the whitish or rice water discharges.

This looseness, when not in excess, may at times continue one or more days, to be followed by apparent costiveness, when it may again show itself; and unless the cause be removed by appropriate medicine, we may have a sudden appearance of many of the characteristic symptoms of the well marked disease.

Before commencing the treatment appropriate to this collection of symptoms, I cannot refrain noticing a few of the opinions entertained by Dr. Cartwright, and published in his pamphlet upon cholera. In the course of his remarks, he says, "I treat both the cholera, and what

are improperly called the premonitory symptoms, in the same manner, viz: twenty grains cayenne pepper, twenty grains calomel, or hydrargyrus cum creta, ten grains gum camphor, fifteen grains gum arabic, and fifteen grains calcined charcoal, mixed together and given at one dose, in two tablespoonfuls of cold water." In severe cases, there can be no question of the excellence and power of this combination, and that many deaths have resulted from trifling with even the mildest premonitory symptoms, most uniformly diarrhœa, providentially sent as a beacon light to arrest the attention of the thoughtless, in a time of great danger, can not be questioned; but that such, in most cases, very mild symptoms require an heroic dose, may very properly be denied. In the most positive language, from one end of the world to the other, we have been assured, by correct and close observers, that an immediate attention to the premonitory symptoms almost certainly and invariably arrested the further progress of the case, by the timely exhibition of one or more doses of many mild though unquestionably efficient remedies. My own experience, no less than that of the community at large, is directly opposed to the necessity or propriety of resorting to the most powerful remedies in the incipient stage of this, or indeed most other diseases.

Dr. C., notwithstanding the previous quotation, makes use of the following language: "What is best for one case, may not be best for another," "much therefore, must be left to the judgment of the practitioner, in adapting the most suitable plan to each case as it occurs." "*No one plan can be best in all cases*, because the constitution of the patient and the circumstances surrounding him, are not the same in all cases."

These medical truisms, I consider rather difficult to reconcile with the previous quotation, or still more with the following, in the words of Dr. Cartwright, who says in his preface, that his paper is intended for intelligent and well read members of the profession.

In the appendix, alluding to the most severe grades of cholera of a malignant character, Dr. C. remarks: "Whenever this form of cholera occurs, I recommend that every negro on the plantation, young and old, have a full dose of my cholera medicine, in proportion to their ages, given to them in their respective houses, without waiting for them to get sick." If such directions are in accordance with the true principles of the healing art, I must confess, that my preceptors left me in profound ignorance, as to the sources from which they emanated.

Treatment of the First Stage or the Premonitory Symptoms.

These symptoms, as generally observed, will almost invariably, yield to one or more doses of the following, given either separately or several in combination :

Laudanum,	dose, drops	15 to 30
Paregoric,	“ “	40 to 100
Ess. Peppermint,	“ “	15 to 30
Sp'ts. Camphor,	“ “	10 to 20
Tinct. Red Pepper,	“ “	20 to 40
Tinct. Ginger,	“ “	20 to 50
Comp. Tinct. Myrrh,	“ “	20 to 40
Sp'ts. Hartshorn,	“ “	5 to 15
Sulphuric Ether,	“ “	10 to 30

To be taken in water, or sugar and water, every half hour, hour, or two hours, according to the violence of the symptoms.

Should none of the above be at hand, it is well to know that a wine glass full of port wine, a tablespoonful of brandy in hot water, or half a teaspoonful of powdered ginger, with a few grains of red or black pepper mixed in a small quantity of sugar and water, answers the same purpose.

Satisfied in all cases of the tendency to, or actual presence of more or less derangement of the digestive organs, I preferred and used, with uniform success, the following pills and mixture :

R. Pulv. Opii ; gr. v.

“ Ipecac, gr. v.

“ Capsici, gr. viii.

Mass. Hydargyri, gr. xv. M.

To be made into 12 pills; dose, one pill, 2, 3 or 4 times a day, if necessary; rarely are more than one or two required.

The following mixture was generally given in conjunction with the above, though frequently, by itself, has proved sufficient :

R. Tinct. Opii	3ii
Tinct. Capsici	3iii
Tr. Zingiber	3iv
Tr. Camphor	3ii
Syr. Rhei Arom	3jss
Ol. menth. pip.	3ss
Aq. Camphorae, q. s. pro.	3iv M.

Dose, one teaspoonfull every half hour, hour or two hours, until relieved.

In cases attended by frequent discharges from the bowels, the addition of one ounce of the tincture of kino or catechu, to the above proved very serviceable.

In those cases resembling colic, I have found the following successful :

R. Tinct. Capsici,	3ii
“ Zingib.	3vi
“ Camphor,	3ii
“ Cinnamom,	3vi
Ol. Caryoph,	gtt xxv M.

Dose: 20 to 40 drops, every half hour or hour, on a lump of sugar, or in sugar and water. In all cases I advised those complaining to return home, keep quiet, and if not relieved in an hour or two, to apply a mustard poultice to the stomach, and use tea and toast, rice gruel, chicken or mutton broth, flaxseed tea, or gum water, for nourishment.

The following epice tea has always proved serviceable, in mild cases, sufficient by itself, and in severe ones, a valuable adjuvant:

The spice tea is made by infusing in half a pint of boiling water, over a few coals, or a spirit lamp, for 10 or 15 minutes the following articles: one or two tablespoonfuls of the best Jamaica ginger, and cinnamon, one or two teaspoonfuls of cloves, bruised or broken into small pieces. The addition of sugar, and a few tablespoonfuls of the best brandy, can be made, if advisable. One or two teaspoonfuls may be given hot or cold, every 10 or 15 minutes.

The following cholera pills and syrup have been extensively used, with as much success as could be anticipated from any remedy for the treatment of epidemic cholera.

Cholera Pills.

R. Assafœtidv, gr. x.

Opii, gr. xv.

Camphor, gr. xxv.

Capsici, ℥ii.

Sub. mur. Hydrarg, ℥iss.

Quinine, ℥ss.

Mass. hydrarg, ℥i M. in pil. no. xxx div.

Dose, from one half to one or two, every one, two, or three hours, according to the violence of the symptoms.

Cholera Syrup.

R. Pulv. Acaciæ, ℥ii.

Sacchar. Alb. ℥vi.

Aq. Camphoræ, ℥vi.

Tr. Rhei, ℥ii.

" Opii, ℥iss.

" Catechu, ℥ii.

" Myrrh Comp. ℥ii.

" Camphor Satur. ℥vi.

" Zingiber, ℥ii.

" Capsici. ℥iss.

" Gallarum, ℥i.

Ol. Cinnamom, ℥i.

" Caryophil, ℥iss.

" Menth. Pip. ℥iss. M.

Dose: From 20 drops to one teaspoonful, repeated according to circumstances, with or without the cholera pills.

The following correspondence is not adduced for the purpose of ascribing to or claiming for these pills and syrup, any peculiar merit or specific properties. I am confident many other combinations would have proved equally efficient, and do not believe in the possibility of discovering a specific for this disease; but rather that the principal

reason of the acknowledged want of success in its treatment, in Europe and this country, has resulted from the vain search after some specific remedy to remove or cure the assemblage of symptoms constituting the different stages of this confessedly one disease.

The course of treatment recommended and published in the *Delta*, was the same as that noticed in these remarks, and not only in my own hands, but in those of others, the result having been at the bedside perfectly satisfactory, I think it sufficiently proves the much dreaded cholera to be as much under the control of medicine, when guided by fixed principles, as any other severe disease of an epidemic character.

NEW ORLEANS, April 26, 1849.

MR. SMITH, of *Steamer Alex. Scott* :

Dear Sir: The conversation had with Capt. Sturgeon and yourself, prior to the departure of your well known boat, on 27th March, for Louisville, and the published fact of their not having been a death on board during the passage of six days, notwithstanding the large number of passengers, and many cases of sickness, sufficiently apologise for the request of an answer to the following questions :

1st. What was the number on board, including passengers, officers and crew ?

2d. What number of cases of sickness occurred during the passage ?

3d. What was the general character of the sickness ?

4th. What general course of treatment did you adopt ?

5th. Did a single death occur ?

6th. Are you aware of any other boat, during the last few months, having made a similar trip, without the occurrence of one or more deaths ?

Very respectfully, your friend,

E. J. COXE, M. D.

P. S.—Friday evening, 27th.—As you have just returned from a second trip to Louisville, be so good as to notice, in reply to the different questions, all that may appertain thereto.

The following answers were kindly favored by Mr. Smith :

Answer 1. Four hundred and twenty-six in the first, and three hundred and sixteen in the last trip.

Ans. 2. Rather more than one hundred cases of sickness in the first, and seventy in the last. The greater number of cases in the last, occurred within thirty or thirty-six hours, and appeared to have been caused by the sudden and great change in the weather, which became very cold and damp.

Ans. 3. Vomiting, purging, and cramps ; the most frequent being vomiting, as well in the first as in the second trip. Great prostration was almost uniformly observed.

Ans. 4. The general course of treatment was as near as possible that recommended in your general directions, and additional remarks, as lately published in the *Delta*.

Ans. 5. In the first trip there was not a single death, and in the second but two—both men were in a dying condition when first report-

ed to me. I did not do any thing for them, and in less than two hours they were dead. These persons had eaten freely of decayed oranges but a few hours previously.

Ans. 6. To the best of my belief, I do not think there has been one.

Symptoms of the Second Stage, or confirmed Cholera.

The premonitory, or first stage, having been neglected, or uncontrolled by the usual remedies, or as sometimes occurs, there having been little, if any, premonition, we have a well marked case, presenting the following symptoms, varying not a little in intensity and rapidity :

Sickness of stomach, preceded by looseness of bowels, and followed by vomiting ; the quantity ejected from the stomach and bowels often very profuse, and soon followed by excessive exhaustion or weakness.

Purging is more constant than vomiting, and in the majority of cases is the first symptom, is rarely absent altogether, and when unnoticed, generally indicates a marked degree of malignancy in the attack. Gripping and tenesmus are rarely, if ever, observed, although the calls are frequent and irresistible.

The skin becomes cold, and presents a livid appearance, a feeling of faintness supervenes, and there are painful spasmodic contractions of the muscles of the extremities or body, or both.

The pulse becomes small, weak and quick, frequently imperceptible in a short time, at the wrists. The surface of the body has a collapsed or shrunken appearance, the lips and nails become blue, and the hands and feet shrivelled, as if soaked for days in water. Almost invariably, we have oppression, pain, or a burning sensation in the stomach, accompanied with excessive thirst and an insatiable desire for drinks. The eyes are sunk in their orbits, and surrounded by a dark, livid circle; the features collapse, and the countenance quickly assumes that cadaverous appearance, so peculiar and marked a characteristic of the disease.

The tongue is generally moist, whitish, and cold to the touch, and the breath is also cold.

The purging, at first consisting of dirty, feculent, watery discharges, and the vomiting of the contents of the stomach, continue to increase both in quantity and frequency, until the matter discharged assumes the appearance of rice water. There is now evidence of a complete cessation of the secretion of bile, and most generally, a decrease or total suppression of urine, which last is always to be regarded in an unfavorable light.

This excessive vomiting and purging do not generally continue very long, being either moderated or overcome by the resources of art, or continued until, from its excess, the system is reduced so low that no more can be supplied, they, as well as the spasms, often disappearing, and the patient falling a victim to the disease, or the recuperative powers of nature, aided by appropriate remedies, bringing about a reaction.

The immense amount of watery discharges, by vomiting and purging, if always present, would afford a rational explanation of the great debility, thirst, thickness of blood, and absence of pulse; but as such is

not the case, and some of the most sudden and rapidly fatal cases are seen where neither exist, we are forced to believe in the presence of some powerful poisonous principle, extending throughout the atmosphere.

Treatment of the Second Stage, or confirmed Cholera.

The great tendency to and rapid approach of extreme prostration, the recession of the blood from the surface to the central organs of the body, the cold livid skin, all indicate, as the great and first object in the treatment, the producing a positive reaction, or determination to the surface, manifested by an increase in the volume, frequency, and force of the pulse, a hot skin, and warm perspiration.

Admitting that this desirable object has been and can be obtained by different modes of proceeding and remedies, I feel convinced that in the majority of cases, under all circumstances, this desideratum will be more speedily, safely, and certainly effected by the use of emetics than by any other class of remedies.

Although not objecting to the various articles of this class which have been used successfully, I am of opinion, that the stimulating emetic which I have so frequently and successfully employed, is most to be depended upon for the accomplishment of the end in view, for the following reasons :

1st. Properly employed, this emetic will rarely, if ever, fail to produce immediate and powerful straining and vomiting, constituting the essential difference between the vomiting as an effect of the disease, and that produced as a means of cure. In the former, the most serious depressing or prostrating influence is exerted, tending rapidly to the stage of collapse, while in the latter, the very reverse is brought about, with an almost immediate cessation of every bad symptom.

2d. Possessing stimulating properties of a positive character, in addition to the amount of salt used, which may by itself produce some of the good effects ascribed to the saline treatment, this powerful perturbing mixture stimulates every portion of the body, produces a general and permanent reaction, and by equalizing the circulation, prevents the uniform tendency to congestion in the internal organs.

3d. As a consequence of the effects produced by this emetic, it will almost invariably allay or completely arrest the vomiting, purging, cramps, sensation of heat or oppression, and in an incredibly short time produce a most marked change in the pulse, which, although scarcely perceptible, becomes full and frequent, followed, or rather accompanied, by a hot skin and copious warm perspiration. In proportion to the abundance of perspiration, fullness of pulse, and heat of the skin, I have always observed a corresponding permanency of the much desired reaction, a less tendency to recede, and very seldom any symptoms of congestion.

I have frequently, at the bed side, noticed all of the above changes, and still more that patients who, after having had profuse vomiting and purging for hours, accompanied with violent spasms of the muscles of the body and limbs, cold tongue and breath, the peculiar cholera countenance, were not only immediately relieved of all, but would sink into

a sound sleep, which has lasted from one to five hours, and when aroused would be found to be in a favorable condition, requiring little else than a dose of calomel, or one or two of the cholera pills to complete the cure.

The following remarks upon the employment of emetics in cholera, are given by Dr. Chapman: "More is done by the emetic in occasionally overcoming the spasms, and on its secondary and diffusive operations taking place, a centrifugal direction is given, whereby the irritation of the first passages, as well as the deep seated congestion, are removed. On the restoration of the just balance in the circulation, and the functions dependant on it, the system, before prostrate, now emerges from under the load, and we are presented with a case altogether more open and manageable." The following is the emetic I prefer:

The strongest flour of mustard, 2 or 3 tablespoonfuls; common salt, 4 to 6 tablespoonfuls; powdered ipecacuanha, one teaspoonful; powdered Jamaica ginger, 2 or 3 teaspoonfuls and powdered cayenne, half, to one teaspoonful. These mixed in 3 or 4 pints of water as warm as can be swallowed, and taken by the tumblerful in rapid succession, until a full effect has been produced, will rarely disappoint our expectation. In cases of emergency where valuable time would be lost in procuring all of the above, I have used, with almost as much satisfaction, the mustard and salt given in the same manner.

Previous to, or simultaneously with the emetic, I bring into requisition the following: a large mustard plaster to the abdomen, or spine, and calves of the legs, or sole of the feet, or in its place, or subsequent to it, as may be demanded by the case, a spice plaster applied as hot as can be borne, and the heat retained by putting over it five or six thicknesses of flannel or muslin, wrung out of boiling water, which can easily be renewed when required.

This spice plaster is made as follows:

Powdered Jamaica ginger, 3 or 4 tablespoonfuls; powdered cinnamon, an equal quantity; powdered allspice, 2 tablespoonfuls; powdered cloves, the same quantity, cayenne pepper, 2 teaspoonfuls; one or two handfuls of flaxseed meal, hops, or chamomile flowers.

These being well mixed in a basin with boiling water and a few tablespoonfuls of brandy added, are to be put in a flannel bag, or spread upon a piece of muslin, and applied to the stomach.

In cholera, no less than in other diseases, this hot spice plaster will frequently relieve and remove pain or irritability of the stomach more certainly than mustard, and to a degree by no means to be measured by the degree of irritation produced.

The emetic having produced the desired effect, and the external applications being all arranged, I now, except the patient has fallen into a sound sleep, when I prefer waiting and allowing nature to do her part, give either a large dose of calomel, from 20 to 40 grains depending upon the age, combined with 3 or 4 grains of cayenne pepper, and ten of the best Jamaica ginger, in one or two teaspoonfuls of the cholera syrup, or any other stimulating remedy that may be at hand. In stead of the large dose of calomel, I have very frequently given one or more of the cholera pills, generally with equal advantage, though I confess to a preference for the calomel.

At this stage of the disease, small portions, occasionally, of the spice tea, given hot or cold, as may be preferred, I have found very serviceable, and grateful to the patient.

To allay the thirst which sometimes exists after the operation of the emetic, though far less frequently or severely than by any other course of treatment, I give small pieces of ice as frequently as may be desired, or iced water, gum water, or flaxseed tea in small quantities at a time. Nothing proves more generally grateful or successful in allaying the inordinate thirst so constantly complained of in this disease, than a seidlitz or soda powder mixed with ice water, and taken occasionally while effervescing. For the same purpose, a solution of super carbonate of soda in ice water may also be given. Dissolve one teaspoonful in half a tumbler of ice water, and give one teaspoonful every 5 or 10 minutes.

The characteristic discharges of the disease from the bowels having ceased, if the first dose of calomel, or pills, have not produced any effect, I now generally give another of either, and wait for the effects.

Should the discharges be of a black offensive character, and not abundant, it may be necessary to give a stimulating injection of senna tea and salts, or a few doses of the following :

R. Tinct. Rhei,	℥iss.
Syr. Rhei. Arom.	℥iss.
Tr. Capsici,	℥i.
Tr. Zingiber,	℥ij.

Dose—two to four teaspoonfuls every two, three, or four hours.

In this stage of the disease, should the remedies have produced their anticipated effects, and no particular indication exist, it is highly important to allow your patient to remain perfectly quiet, satisfied to let well enough alone, confining him to small quantities of mild nutritious drinks, as arrowroot, rice gruel, chicken or mutton broth, and such articles.

It may be laid down as a general rule, that the vomiting, purging, cramps, and other symptoms having been overcome without the existence of any particular local pain, our best and safest course is to watch closely, and by means of mild nourishment, perfect quietude of mind and body, to allow the powers of nature gradually to restore the system to a state of health.

Symptoms of the Third Stage, or that of collapse, also called the Blue Stage.

The main difference in the symptoms of this stage from those of the second consists rather in the degree of violence, and almost hopeless condition of the patient. The principal symptoms are a deeper livid or blue color of the skin, lips, and nails, a more general appearance of shrinking of the whole body, with much more of the sodden or soaked condition of the hands and feet.

The skin is still more insensible to the action of powerful stimulants, the eyes more deeply sunk in the orbits, surrounded with a far deeper

livid circle; the countenance assumes still more the corpse-like appearance so remarkably characteristic of this stage of cholera.

The insatiable thirst and desire for cold drinks continues unabated. The tongue is moist, whitish, and almost as cold as ice to the touch. The voice is unnatural, very weak, or scarcely audible. Respiration is generally slow and oppressed, with a manifest coldness of the breath. The pulse falls rapidly, and soon becomes extinct at the wrist, and scarcely perceptible in the large arteries. The spasmodic contractions of the muscles are often very powerful and painful.

The duration of these symptoms varies materially, sometimes terminating fatally in a few hours, at others prolonged, beyond all expectation, to one or two days, when the combined powers of nature and art may succeed in producing a reaction, which, when of a violent character, has been called the fourth stage, or that of reaction or fever.

Treatment of the Third Stage, or that of collapse.

The first and second stages having passed without timely assistance, or the remedies having proved ineffectual, few recoveries can be anticipated.

The important and principal object in such a case, is to arrest its downward progress, by causing a reaction.

The ordinary means, most likely to effect this, are regular and long continued friction of the body and limbs with flannel and hot salt, mustard and cayenne, finely powdered; a mustard poultice, or flannel steeped in turpentine, or aqua ammoniæ applied to the spine: the dry frictions are, however, most to be relied upon.

In these extreme cases, it has been proposed and practised, more immediately to accomplish the end in view, to moisten the spinal column with spirits of wine, or sulphuric ether, and then set fire to it. As a very powerful and immediate excitant, this is deserving of more attention than has been given to it. Strong saline enemata, given as warm as prudence will permit, have been strongly recommended.

Of the propriety and usefulness of calomel, in these cases, many speak with the greatest confidence. Some give it in large doses, while others prefer it in smaller quantities, repeated more frequently: in either case, it is better to combine it with cayenne.

For the avowed object of procuring a reaction, the application of a number of dry cups to the abdomen and breast, by their powerful revulsive action, will frequently prove highly beneficial. Of all the remedies noticed, there is not one that will so uniformly or certainly accomplish the reaction, as an emetic of mustard, salt and cayenne, or ginger. Given as warm as it can be swallowed, it will rarely disappoint our expectations; and the reaction with the profuse powerful perspiration ensuing, will, in the words of Dr. Chapman, give us a case altogether more open and manageable.

The apparent hopelessness of the case should not deter us from the use of this emetic. Frequently have I had great difficulty in causing it to be swallowed, never to regret its administration, but more than once that it had not been used. After every other means had been unavailing, I have seen it prove perfectly successful.

Doubtless, there are cases where this remedy could not properly be resorted to; there, however, the judgment of the physician must decide. Should it not be considered advisable to administer the above or any other emetic, our main resource will be the continuance of powerful stimulants internally, as the spice tea with brandy, camphor, carbonate of ammonia, spirits of hartshorn, cayenne, milk punch, and injections of hot salt and water, or other stimulating articles.

The fear of the too great degree of the possible consecutive fever must not prevent the employment, in these desperate cases, of repeated doses of powerful stimulants; for if we cannot succeed in producing a reaction, death, in all probability, will shortly occur. If the remedies used should succeed in causing reaction—and however hopeless the case may appear, we must not relax in our efforts—we have the case brought to the second stage, when one or more doses of calomel, quinine, cayenne and ginger may be given to restore a healthy biliary secretion.

We should now continue the application of warm stimulating applications to the abdomen, soles of the feet and calves of the legs, for the double purpose of maintaining the reaction, and diverting to the surface and extremities; thereby lessening the tendency to a determination to the head.

Small quantities of the most concentrated animal broths should be occasionally given, together with wine or milk punch, to meet the demands of the case.

Should the reaction prove too violent, causing the consecutive fever, with more or less pain in the head, it will be necessary to apply cups or leeches to the temples or back of the neck, or even to draw blood from the arm, with cold water constantly to the head, having previously thinned or removed the hair.

One or more doses of calomel, followed by seidlitz powders and injections of salt and water, more especially if the bowels have not been opened, may now be used very advantageously.

The desire for cold drinks may be gratified at this time, with more freedom. It is all important, in the treatment of this disease, to advert to the strong tendency to congestion, more especially of the brain, and upon the first appearance of any of the ordinary signs, to refrain as much as possible from the use of stimulants, confining the treatment to mild nutritious drinks, dry or moist cupping to the temples or back of the neck, shaving the head, and keeping ice water constantly applied.

The brain remaining unaffected, we must never despair of success; but where it is so, the number of recoveries will be very small.

In reference to the treatment of the consecutive fever in the fourth stage, it is unnecessary to offer any additional remarks, so much having already been said appertaining thereto.

During the continuance of this febrile condition, it is necessary to ascertain whether any urine be passed; and if not, to examine the region of the bladder. Passing the catheter is frequently necessary to determine the actual condition of the bladder.

In conclusion, the following general remarks may properly be introduced:

A singular fact attends the progress of this disease through its most severe stages, that, of the continuance of the functions of the brain, almost to the last moment of existence. Although the symptoms of the several stages are most generally observed in their regular order, it is by no means an unusual circumstance to find cases of an extremely sudden and fatal character, wanting in many of the usual and more prominent symptoms.

At times, there may be an absence of vomiting, and prevalence of purging; at others, an excess of vomiting, with a very moderate discharge from the bowels; and this last may sometimes be wanting entirely, though of very rare occurrence. The spasms vary considerably, generally very severe, though occasionally scarcely perceptible.

Perhaps the most sudden, severe, and almost certainly fatal cases, are those attended by slight apparent derangement or disturbance of the system, little or no vomiting, purging, or spasms; with very little premonition, there comes on a sensation of great coldness and exhaustion, with the peculiar characteristic features and expression to a surprising degree, and in a very short time an almost total arrest of the circulation, the pulse being scarcely perceptible. In these cases, without the most prompt and energetic treatment, death will inevitably result.



VIII.—EXOPHTHALMOS—with observations on some other affections of the Eye. By C. F. FENNER, M. D., New Orleans.

A few months since, a medical gentleman from Alabama, consulted me in regard to a frequent exophthalmos of his right eye. I took no notes of the case at that time expecting to see him again in the course of a few weeks, but unfortunately he was attacked with an acute disease, which he did not survive, consequently I have to depend on memory for such facts of the case as I shall mention. He stated that some years previously, both eyes, which were naturally prominent, had gradually become still more so, that suddenly from some slight cause (which I do not now recollect) the right eye slipped from the socket, protruded from the lids and lay on the cheek—vision was instantly destroyed. He took hold of the eye with his fingers and gently returned it to its proper place within the orbit, and was agreeably surprised to find the sight return and the motions of the globe to be as free and perfect as ever. He had never experienced any pain or uneasiness in either eye, nor was the exophthalmos followed by any inflammation or soreness except that which was occasioned by the touch of the fingers in returning the parts to the orbit. Some months afterwards, while walking and without the application of any direct force the same eye protruded again, and was returned in the same manner as at first, without being followed by any unpleasant symptoms. The eye had continued to escape from the orbit every few months for several years, and these attacks had become

more frequent of late. The eye had on one occasion slipped from the socket while asleep. Although vision remained perfect, the gentleman was apprehensive that he would eventually lose the sight of the eye. On examining the orbit, I could detect no tumor, no induration of the cellular tissue, no enlargement of the lachrymal glands, nor increased lachrymation. Both eyes were large and prominent, the left nearly as much so as the right, and from their superficial position it would require but little stretching of the optic fascia to permit the globe to slip over the edge of the orbit. I think in the first place there was either some infiltration in the cellular substance, or a morbid accumulation of adipose tissue on which the eye rests, and that after the optic fascia and recti muscles had once become stretched or relaxed by the first protrusion of the eye, they never afterwards regained tone sufficiently to prevent a recurrence of the exophthalmos from very slight causes.

Orbital Tumors.—February 15th, 1848.—Mr. W—— a young man about twenty-five years of age came to me with a tumor situated just within the temporal edge of the orbit of the right eye. He stated that when a boy, he received a blow on the temple and soon after discovered at the external canthus a small tumor which had been enlarging slowly up to the time I saw him. At first it gave him no trouble, but for the last two or three years, it had attained such a size as to press on the eye sufficiently to impede its free motion and at times to give him much pain. I found the tumor firm, apparently of a cartilaginous structure, attached to the bone, six or seven lines from the edge of the orbit. From its surface next the eye, a fleshy growth protruded, piercing the conjunctiva, lying loose between the lids and globe of the eye. This growth had from the pressure of the lids assumed a flat elongated shape, extending nearly to the inner canthus, covering the cornea and depriving the eye of all useful vision; besides being the source of irritation, causing the conjunctiva to be in a constant state of inflammation, liable to become severe on slight exposure to cold, night air, over exertion &c. I advised the removal of the tumor, to which he at once consented. I made a perpendicular incision near the external canthus, dissected down to the attachment of the tumor to the periosteum covering the orbital plate of the frontal bone to which it had grown by a narrow neck. The tumor was so hard that it was with difficulty pierced with a tenaculum. With a strong pair of scissors, I separated the attachment to the periosteum, dissected it from the palpebral integuments to which it closely adhered, when it came away bringing with it the fleshy growth covering the cornea. The wound healed by the first intention and the patient discharged entirely well. The tumor was about the size of a filbert, solid throughout and of an almost bony hardness.

February 1st., 1848. A negro girl ten years of age, was brought me with severe inflammation of the left eye, of six weeks standing. On making an examination, I found severe conjunctivitis, the upper lid much swollen, the cornea inflamed and having a long narrow penetrating ulcer three lines in length, extending from its lower edge upwards between its centre and temporal margin. There was considerable pho-

tophobia with increased lachrymation on exposure to light. The reflex conjunctiva, extending from the globe to the upper lid, was pushed down between the cornea and ciliary margin, throwing the lid from the eye, but not sufficiently to evert it. There was no chemosis and but slight thickening of the conjunctiva, the reflex portion of which appeared to be displaced by some foreign body situated behind and pressing it from its proper place. There was some slight sympathetic derangement of the system. I tried the usual antiphlogistic plan of treatment, such as taking blood from the temples, purging, emetics of sulphate of zinc, counter-irritation and without mitigating the symptoms in the least. The ulcer on the cornea continued rapidly to extend. Presuming that the displaced conjunctiva rubbing over the surface of the cornea, if not the first cause of the inflammation, had much to do with keeping it up, I determined to make an incision through the part and if possible, remove the cause of its displacement whatever it might be. An assistant elevated the upper lid while I made an incision through the most prominent part of the protruded membrane, parallel with the ciliary margin and extending nearly from the internal to the external canthus. There instantly extruded a considerable quantity of fatty cellular tissue, which I seized with the forceps and cut away with a pair of curved scissors. The quantity removed filled a large teaspoon. The conjunctiva resumed its proper position, the swelling of the lid disappeared. The next day there was an abatement of all the symptoms, the corneal ulcer had ceased to extend, the photophobia was much less, the conjunctiva had assumed a pale appearance indicative of a subsidence of inflammation. At the end of a week the eye was nearly well, the ulcer on the cornea which I occasionally touched with the nitrate of silver, was rapidly cicatrising. At the end of another week, I discharged the patient entirely well. The only injury the eye had received was a narrow cicatrix in the cornea, which as it was near the temporal margin, interfered but little with vision.

Part Second.

REVIEWS AND NOTICES OF NEW WORKS.

I.—A TREATISE ON THE DISEASES OF THE BONES. By EDWARD STANLEY, F. R. S., President of the Royal College of Surgeons of England, and Surgeon to St. Bartholemew's Hospital. Lea & Blanchard, Philad. 1849, pp. 286.

At last we have been favored with a scientific work on the diseases of the bones, truly a desideratum in our medical literature. Since the days of Petit and Boyer, the first of whom wrote a treatise on this subject, in 1705, and the second in 1803, no writer has given us any thing like a systematic account of the peculiar affections of the bones. Surgical books always contain a short account of the diseases of bone; but they are so incomplete and unsatisfactory, as hardly to deserve a passing notice. They say a few words on *periostitis*—*necrosis*—*spina ventosa*, etc., etc, and dismiss the subject, as either too dry for the display of their eloquence, or too obscure for their understanding. Mr. Stanley's book is eloquent with facts, carefully observed and fairly interpreted. In his introduction to the *general consideration of the diseases of the bones*, he states that he has adopted the fundamental principle, first promulgated by J. L. Petit, and afterwards extended and enlarged by Hunter and Abernethy, viz: that the bones of the human body, experience the same morbid changes, and are subject to the same diseases, and are repaired in a similar manner as the soft parts of the system. Keeping this important fact in view we shall be prepared to describe the various lesions and indicate the curative means that should be adopted to remedy such morbid changes.

Whilst it is correct to say, as above, that the diseases of bone, resemble those of the soft parts, it must be remembered that the former have their peculiar characters, and must be modified by the structure and vital properties of the parts assailed.

Disease of bone usually progress slowly; they likewise recover slowly, and this fact should introduce some change of treatment, as the indications fluctuate with the progress and duration of the disease. So also, the constitutional effects of disease of this structure, are more

severe and lasting, than that of any other structure, perhaps, of the animal economy. The comparative want of vascularity of the bones, does not screen them from intense active inflammation.

Free from disease, bone possesses but little sensibility; when diseased, however, it becomes exquisitely sensitive, and gives rise to much suffering and loss of rest in consequence. Like the soft parts, injuries and lesions of bone are repaired by the process of granulation, etc.; such granulations are equally amenable to morbid sensibility, as in other tissues of the body. Of the congenital defects of bone, mentioned by the author, we shall say but a few words; it is known that children are sometimes born with a kind of *nævus* of the osseous tissue, as of the soft parts. Mr. Stanley mentions the case of an infant "born with vascular hypertrophy, of the character of *nævus*, extending through the soft parts on one side of the cranium and face, the bones were correspondingly affected, being thick and spongy and very vascular."

The same laws which govern or control symmetrical morbid action in the soft parts, extend to the bones, and the museum of St. Bartholomew's Hospital, contains many specimens, illustrative of this fundamental law. If the foregoing propositions be based on facts, it is easy to perceive that any deterioration in the healthy composition of the circulating fluids of the body, must produce corresponding changes in the component elements of the bony structure. If there be any curtailment to the extent and variety of the disease of bones, not observed in the other structures of the body, it must be due to the large per cent of earthy elements which enter into the composition of bone. It is true that in certain affections, as for example, gout, the earthy phosphates are deposited in excess about the joints; but can we declare this to be absolutely correct? Is it not rather apparent than real? and may not this product result from lesion of the surrounding soft parts and thus check or suspend the elimination of the earthy elements of bone? But we are touching upon speculative grounds; let us proceed to notice the manner in which Mr. Stanley arranged the subject to be discussed in this neat volume. He arranges morbid ossifications and osseous productions under the following heads:

1. Unorganized masses of calcareous salts, found in various tumors, especially in the fibrous tumors of the uterus, also constituting the apparent ossifications in the coats of arteries.
1. Ossifications of original tissues, as of fibrous membrane, tendon, muscle, &c. These are, probably, but the ossifications of one tissue, the cellular, a component of all these structures.

Fibrous membranes are remarkably prone to ossification; one example of which, among many, is the long enduring ulcer upon the leg, followed by ossification of the periosteum beneath the ulcer and around it, accompanied by ossification of the inter-osseous ligament between the tibia and fibula, often converting it into a thick plate of bone. The character of its organization is not the sole cause of the tendency of fibrous membrane to ossify. Its vital properties, and its locality in connection with the purpose it serves, are also to be taken into account in explanation of the exception that some fibrous mem-

branes, as the muscular aponeuroses, or fasciae, very rarely ossify. So in respect to the pericranium, which in its structure is not distinguishable from the periosteum of other bones; yet the ossification of its texture does not occur. Osseous tumors, it is true, are found upon the cranium, but they have originated in the bone, not in the pericranium.

All these ossifications of original tissues, when completed, exhibit in the microscope, in different instances, more or less of the characters of true bone.

3. Growths of perfect bone. Most of these are productions from originally formed bone, but they are not invariably so: some of these growths are found in cellular tissue, and have no connection with the adjacent bones. The osseous tumors growing from bones are of three kinds: one consists in a circumscribed hypertrophy of the bone, from which the tumor grows; this is not preceded by cartilage, it is usually cancellous, and its composition is the same as true bone. Another osseous tumor growing from bone is that which is of most frequent occurrence, the genuine exostosis, which is preceded by the formation of cartilage, and composed of true bone, and is usually a local malady of an innocent nature. The third form of osseous tumor growing from bone, includes varieties in respect to its composition and character, and some of these exhibit features of malignancy. One of the most conspicuous of such growths is the Osteoid Tumor of Muller."

Bone may be deposited in or formed out of nearly all the original tissues of the body; the muscles are, it has been said, not convertible into bone, under any circumstance. Whenever this seems to be the case, it is more than probable the muscular fibre proper is absorbed or disappears under the morbid action going on in the part, and that it is the cellular tissue that has been converted into bone. Andral has occasionally seen the tentorium cerebelli completely ossified: we once saw in the "dead house" of the Charity Hospital of this city, an instance of ossification of the iris.

The regenerating power of bone is greater than that of muscle, tendon and some other parts of the system; as the destruction or ablation of a portion of bone, either by disease, or otherwise, is usually, under favorable circumstances, reproduced and replaced.

Before we enter on the nature of the several diseases of bone as pointed out and described by the author, we propose to call the reader's attention to the manner in which bone is formed, and its ultimate structure.

Vogel tells us that in an amorphous cytoblastema, which may be either solid or liquid, cartilage cells are first formed, and between them the amorphous intercellular substance of cartilage—true cartilage. With this first formation, the original protein compounds of the cytoblastema are converted into chondrin, which then changes into bone.*

The above changes having been accomplished, (together with others, which we have not space to notice,) the osseous substance becomes impregnated with calcareous salts, whilst its organic base remains chon-

* Pathological Anat., p. 187.

drin, as in most pathological formations of bone, or is converted into gelatin.

The above changes, as described by Vogel, take place in bone, when generated by morbid actions; but we believe it has not yet been determined by pathologists, whether or not cartilage invariably precedes the pathological formation of bone.

*Several chemists have analyzed the composition of diseased bone: we propose, as relevant to the subject, to give the result by Lehman, of bone affected with *rachitis*. He found: Phosphate of lime, 32.04; carbonate of lime, 4.01; phosphate of magnesia, 0.98; chloride of sodium, 0.21; soda, 0.54; cartilage, 54.14; fat, 5.84. Machand analyzed the upper part of the femur of a man affected with arthritis, and the following was the result: phosphate of lime, 42.12; carbonate of lime, 8.24; phosphate of magnesia, 1.01; animal matter, 46.32; flouride of calcium, soda, chloride of sodium and loss, 2.31. The composition of *carious* bone gave the following by Valentine: phosphate of lime, 34.383; carbonate of lime, 6.636; phosphate of magnesia, 1.182; chloride of sodium and carbonate of soda 1.919; organic constituents 55.880. We propose to notice a few more of these analyses, by way of comparison, and then pass on to notice the particular disease of bone described by Mr. Stanley.

In *necrosis*, the quantity of phosphate of lime is much greater than in healthy bone; whilst it is the reverse with the carbonate of lime. The phosphate of magnesia does not vary essentially in either case; and cartilage is reduced at least one half in *necrosis*. Each particular disease of bone produces some variation in its chemical composition, fluctuating with the seat and specific nature of the disease.

Mr. Stanley arranges the diseases of bone under the following classification: *Hypertrophy, and atrophy of bone; neuralgia of bone; inflammation of do.; enlargement of do.* 1st. by *expansion of its tissue*; 2d, *with induration of its tissue*; 3d, *by osseous deposits on its surface; suppuration of bone*; caries, ulceration of bone; death of bone; necrosis. *Part 2d. Tumors of bones under the heads—tumors of bone which pulsate; osseous growths arising in considerable numbers from the skeleton*, and in the soft tissues. *Part 3. Rickets*; condition of bone denominated *mollities*, and *frigilitas ossium*; *scrofulain bone*; *hard carcinoma*; *melanosis in bone*. *Part 4th. morbid growths from the jaws; diseases of the bone of the spine; diseases of the periosteum.*

And, first, of hypertrophy and atrophy of bone;—the former affection, like that of the soft parts, is characterized by an increase of its size, by an augmentation of its healthy tissue. This is frequently witnessed in the long bones; they increase in thickness, but seldom in length, although the author declares he has seen instances of this latter affection in the museum at the university of Bonn. He illustrates this disease, by detailing the particulars of several cases, from all of which, it seems that the enlargement of bone by hypertrophy is not usually accompanied with much pain; it progresses slowly, and is sometimes attended with thickening of the periosteum. Mr. S. expresses his doubts if treatment has any other effect upon these hypertrophied structures, than to relieve the constitutional irritation, created by involving the perios-

*See Simen's Chemistry of Man.

teum. For this purpose, iodide of potash and sarsaparilla internally, and the local application of iodine, are recommended as most effectual.

The bones of the face are sometimes affected with this disease; it begins in the superior maxillary bone, and most common in early life; it follows injuries or violence—progresses slowly, and is not painful on pressure; nor does it affect the general health.

In the course of the disease, if allowed to progress, the surrounding parts become involved; the antrum becomes blocked up, the nasal passage obstructed, and the eye ball of the same side may be partially displaced; thus creating much hideous deformity. We recently saw a case of this kind, in a young girl, at the *Maison de Sante*, on whom Dr. Stone operated and removed one half of the inferior maxilla. Neither the eye nor nasal passages were affected in this case, because the disease was located on the lower jaw. Hypertrophy in the length of the long bones of the lower extremities sometimes causes much embarrassment in the gait; so much so, that it is mistaken for morbus coxarius, and has even been treated as such.

Atrophy of bone is the reverse of hypertrophy, and may result from several distinct causes; any interruption to the nutrition of bone,—paralysis of the muscles, causing inaction of the limb; ankylosis, and indeed any agent or influence that may derange or pervert the nutritive functions of the system generally, or of the knees in particular, may cause atrophy of bone. That inaction, caused by ankylosis of a joint, should produce wasting of the substance of bone, is less surprising than difficult of explanation; and here, we are taught to respect one of the fundamental laws of our being, viz: the health of our physical and even intellectual being, can only be maintained in a state of integrity by regular and uniform exercise of both body and mind; and any neglect to conform to this proposition, whether as respects a part or the entire system, will, sooner or later, cripple our organization, and interrupt the healthy play of all the functions. Ankylosis of the jaw-bone, the result of excessive salivation, will cause, in consequence of atrophy of the bone of that side of the face, great deformity of the features.

We now come to Mr. Stanley's remarks upon "*Neuralgia of bone*," by which term he designates a class of cases in which pain arises in bone, severe and lasting, usually unaccompanied by any inflammatory action, or any organic alteration of structure.

Females are the greatest sufferers from neuralgia of bone; and these kinds of pain are usually accompanied with hysteria. The parts most generally the seat of these nervous pains, are the shaft—the condyles of the femur—the head of the tibia and the humerus. Abscesses in the substance of bone, the product of inflammation, are often accompanied by symptoms so similar to those of a neuralgic character, that the diagnosis is difficult and embarrassing; and yet it is highly important to come to a correct conclusion on the nature of the case; because in the first case, operative proceedings should be adopted to evacuate the contents of the abscess, and in the second, no such steps ought to be taken. The *inflammatory* may be distinguished from the *neuralgic* affection, by greater constitutional suffering—the nature of the local symptoms, the pain being less severe in the first than in the second case.

In this dilemma, the treatment may guide us, since those means which usually check or subdue inflammatory action, exercise no such effect over the neuralgic affection; they rather aggravate the pain, as shown by the following case detailed by the author.

"Neuralgia of the Femur.—A lady, aged twenty-nine, in descending a winding staircase, fell and severely bruised her left hip; tenderness of the part ensued, which in a few days completely subsided. In the course of the following month, she began to suffer pain in the middle and front of the thigh of the same side, and it was referred to the bone. The pain gradually increased; and while at first it occurred in paroxysms lasting a few hours, it had lately become constant, and most severe. Compression of the thigh aggravated the pain, but not until it was sufficient to affect the deep parts of the limb. There was no increased heat, swelling, or other sign of inflammatory action in the soft parts around the femur. The tongue was clean and the pulse tranquil. Mercury, opium, iodine, and quinine were perseveringly employed until each had produced its full effect on the system. Every variety of local application was tried, but upon the pain in the thigh the best of the remedies had only a temporary effect. The case was repeatedly seen by Mr. Stanley; it also received the benefit of Mr. Blizard's and Mr. Lawrence's attention. Throughout, there was apprehension of organic disease, commencing either in the periosteum or bone, with a suspicion, however, that it might be a neuralgic affection without change of structure in one or other part. At length, after the endurance of severe suffering above three months, it began to remit, and by degrees the remissions were for a longer period, and more complete. In this way the case proceeded slowly towards a complete recovery. Nothing occurred to explain the cause of the pain in the femur, nor could the removal of it be ascribed to any of the various remedies employed."

This case illustrates, in a striking manner, the inefficacy of most of our remedies in ostealgia, and teaches us that diseased action, even in bone, will sometimes run its course in spite of treatment, and gradually pass away.

Inflammation of Bone is a subject of considerable interest to the surgeon, on account of the manner in which, if left unchecked, it may terminate. As the bones are well supplied with blood vessels, nerves, etc., they become the seat of great pain, when assailed by inflammatory action, and must be met with prompt and decisive measures, to be subdued. Mr. Stanley asserts that inflammation of the medullary membrane is generally succeeded by inflammation of the periosteum and outside of bone. When this inflammation becomes acute, the periosteum ulcerates, and suppuration follows. Like the soft parts, bone, when inflamed, may terminate by resolution, by suppuration, by ulceration, or by mortification or necrosis; and each of these stages of the disease demands a modification of treatment.

Inflammation of bone requires the same treatment, in general, as inflammation of the softer structures of the human organization. Bone being deep-seated and enveloped in a soft and sometimes thick covering, is less exposed to accidents and injuries, from external agents and inter-

nal influences than many other structures of the body; hence, they are less frequently the seat of disease, but from their organization, when once diseased, they give rise to much constitutional disturbance and often endanger life. The topical remedies for subduing inflammation in bone, are the abstraction of blood, fomentations, rest, abstinence, cold or warm applications, regulated to the feelings of the patient; mercurial ointment abundantly and constantly applied about the seat of inflammation. Mr. Stanley has omitted to advise the frequent application of blisters to the parts, and afterwards to dress the blistered surface with iodine ointment, combined or not with ext. conii or other narcotic extracts. True, he mentions counter-irritation, and advises setons over the situation of the diseased bone; but he has strangely neglected to recommend the *repeated* application of vesicatories in the treatment of *ostitis*, thus withholding the influence of his good name in favor of a most powerful and effective curative agent in this affection. Our author speaks in exalted terms of the virtues of the *iodide of potassium* in relieving the inflammation of bone; he gives it in rather smaller doses than usually advised, and declares that it rarely fails, after proper depletion, to alleviate the pains, diminish the inflammation and remove all cause of irritation. The constitutional effects of mercury will often remove the disease, and Sir B. C. Brodie speaks in flattering terms of a combination of calomel and opium, continued for some time, and given in broken doses in the inflammatory diseases of bone. In the latter stages of the affection, when the constitutional irritation has been great, entailing a feeble and hectic condition upon the system, tonics, either the ferruginous preparations, quinine, or the mineral acids, may prove highly serviceable in the restoration of health. As already stated, bone may be the seat of suppuration, either diffused or circumscribed, in the cancellous or medullary structures; in either case, the use of the limb may be compromised, if suitable means be not adopted to limit its extent in the first instance, or to discharge it when formed in the second.

Mr. Stanley details several examples of suppuration of bone, but we are too much pressed for space to quote them. For further details, therefore, we refer to the text of the author—which will be found highly instructive. When matter, (pus,) forms in the medullary structure of bone, it must be discharged, before the patient can be relieved. Mr. Brodie was the first, we believe, who advised and practiced trephining the bone in such cases, to evacuate the matter; several instances of this kind, are detailed by him in his clinical lectures and the practice is now well established. Suppuration of bone will, if not arrested, end in *caries* or ulceration of the structure; and this leads us to make some observations upon the latter disease—*caries*, which has been defined by the author the “changes which, under certain conditions, are consequent on chronic suppuration in the cancellous structure of bone.” He divides caries into the simple, scrofulous, syphilitic, and phagedenic; but these distinctions are arbitrary; the cause operating being different, the effect is nevertheless the same, namely: caries.

The treatment, however, must be varied to overcome the constitutional cause, which may have determined the particular variety of the af-

fection. Thus, if originating in a syphilitic taint or contamination, some form of mercury may be required; if scrofulous, the preparations of iodine; if phagedenic, both may be combined. Caries of the bone presents, says Mr. S., the following morbid phenomena:

"Inflammation extending from the bone to its investing soft parts, these become swollen, thickened, and tender; and abscesses are formed in them, which contract into fistulous passages leading to the diseased bone. The periosteum covering the diseased bone becomes thickened, very vascular, and readily separable from it. The bone itself is at first very vascular, then its cells become filled with a reddish-brown fluid, apparently a mixture of blood and pus, and occasionally combined with oily particles. Absorption of the bone, but chiefly of its animal part, ensues; that which remains is porous and fragile, and of a grey, brown, or black color, probably from decomposition of the matter within its cells; to which cause, likewise, the fœtid odor of the matter discharged through the fistulous passages may be ascribed. The diseased bone may gradually disappear, either by ulceration, or by its discharge in fragments through the fistulous passages in the surrounding soft parts. Ulceration, in some instances, commences within the bone, hollowing it out, and reducing it to a thin shell; in others, ulceration commences in the outer surface of the bone, and extends progressively inwards. Whilst these changes are in progress, granulations, very loose and spongy, and bleeding on the slightest touch, often arise from the diseased bone, filling the cavities in its interior, and protruding through the fistulous passages in the soft parts covering it."

Caries is not always distinguishable from necrosis; in both the constitutional disturbance is the same; in both there is one or more fistulous channels, traversing the soft parts and the bone, and extending down to the carious or necrotic portion of bone imbedded in the parts. Whether we are able to distinguish one of these affections from the other, or not is of no great practical moment, since, fortunately, the same operative proceeding is nearly alike in both. The bones of the foot and hand are generally the seat of caries; whereas necrosis may be found in almost any of the bones of the body, especially the shaft of the long bones. Both in caries and necrosis, great constitutional efforts are made to reject from the system the dead and decayed portions of bone; but nature does not always succeed in her efforts—art must be interposed—the surgeon must cut down through the surrounding soft parts, make his way with chisel and other cutting instruments, detach the necrosed bone, and remove it.

Mr. Stanley makes some sensible observations on *ulceration of bone*; but we must pass on to the consideration of *necrosis*, a common affection and one entailing serious consequences upon the constitution. The following causes may be recognized as productive of *necrosis*: cold, injury by violence, rheumatism, scrofula, syphilis, &c. The first morbid impression may be made either primarily upon the periosteum, or on the medullary tissue, or upon the bone itself. It has been recently noticed that persons employed in the manufacture of lucifer-matches are exceedingly liable to necrosis of the bones of the jaw.

Mr. Stanley enumerates, in the following language, all the *symptoms of necrosis*:

"Necrosis of the outer lamellæ of a bone is not, in its early stage, readily distinguishable from the inflammatory affections of either periosteum or bone. The phenomena ordinarily attendant on its progress are—separation of the periosteum from the dead bone; inflammation of the periosteum, followed by suppuration beneath it, and by ulceration of it with the investing soft parts, affording outlet to the matter, and terminating in a fistulous passage leading to the dead bone.

"Necrosis of the inner lamellæ of a bone has its characteristic signs. Ordinarily, its first symptom is pain deep in the bone; but in some instances, febrile disorder is the first symptom, continuing many days and even weeks, and then subsiding with the commencement of pain in the bone. The death of the inner lamellæ of a bone is followed by suppuration in the adjacent cancellous texture; also, by the formation of a narrow fistulous passage in its walls, through which the matter escapes from the interior. Whilst these changes are going on within the bone, inflammation arises in the soft parts covering it, accompanied by a soft circumscribed swelling of the integuments, from which, when punctured or allowed to burst, matter will be discharged. Through the abscess in the soft parts, the orifice of the fistulous passage in the walls of the bone may be detected; but it may be so small as not to be found, and then the real nature of the disease will not, for a time at least, be known. Mr. Hey states that, in case he was led to suspect the existence of an aperture in the walls of the bone, from observing that more matter issued from the outward wound than the surface of it ought to have furnished,* and I have had opportunities of confirming the truth of this observation.

"An exception to the foregoing statement of the phenomena consequent on necrosis of the inner lamellæ of a bone, has been just referred to, in an instance where the death and separation of the inner lamellæ of the femur and of the tibia, in the same individual, did not give rise to a fistulous passage in the walls of either bone.

"Necrosis of the shaft of a bone in its whole thickness, whether limited to a portion of its length, or extending through the whole of it, presents the following features:

Febrile disorder, in some cases, precedes the death of the bone; but, in most instances, a sudden attack of pain deep in the limb is the first symptom of it, and this is quickly followed by excessive inflammation in the soft parts, with accompanying fever. The first of the changes immediately consequent on the death of the bone is, that the periosteum no longer retains any hold upon it, and when separated from the bone the periosteum becomes acutely inflamed; the inflammation thence extending through the other tissues of the limb to the integuments, where it presents either a phlegmonous or erysipelatous character. In the several structures of the limb, the inflammation will terminate either in serous effusion, simply enlarging it; or in the deposition of fibrin, consolidating its texture; or in suppuration beneath the periosteum, and in the intermuscular cellular tissue, giving rise to one large abscess, or to many small abscesses in different parts of the limb. Incisions are in general required for the discharge of the matter from

* Practical Observations in Surgery, on Caries of the Tibia.

these abscesses ; and then, unless there is any unusual source of irritation maintaining the suppuration, the quantity of matter secreted will gradually diminish, and some of the passages through which it has been discharged will become closed, whilst others, remaining fistulous, will lead to the cavity in which the dead bone is enclosed. Whilst these changes are in progress, the bulk of the limb will be gradually lessened by the absorption of the serum or fibrin diffused through it; but its several tissues will remain so densely consolidated and compacted together, that if an incision be made into them, they will be found to consist of a firm brawn-like substance, in which the original structure and arrangement of the parts can scarcely be recognized."

Bone destroyed by necrosis may, and is sometimes reproduced, and the author furnishes the subjoined instances as examples of reproduction :

"Lower Jaw. In a girl, aged ten years, the whole ramus of the jaw with its condyle and coronoid process, was extracted by Desault. Its place was supplied by regenerated bone, possessing the same solidity as the rest of the jaw, and its motions were equally perfect. *Chirurgical Journal*, vol. 2.

"Separation of the ramus with the entire condyle. Recovery without alteration of the shape, or diminution of the mobility of the jaw.—Clinical report, by James Syme, Esq., in the *Edinburg Medical and Surgical Journal*.

"Scapula. Scapulam mortuam excidissee et regeneratam fuisse est vir clarus Chopart. Weidmann de Necrosis, p. 28.

"Clavicle. Necrosis of the clavicle in its whole extent, followed by the formation of a new bone, and the perfect recovery of the power of the arm. *Mem. de l'Acad. Royale de Chirurgie*, Tome 5.

"Necrosis of the clavicle, consequent on a fall upon the shoulder. The dead bone was extracted through a fistulous opening ; it comprised the sternal end, and nearly the whole length of the clavicle. The bone was completely reproduced. *Repertoire d'Anatomie et de Physiologie*, Tome 2.

"Sternum. Necrosis of a great part of the sternum. Reproduction of it was in progress. *Museum of St. Bartholomew's Hospital*, First series, No. 63.

"Femur. Necrosis and exfoliation of the neck with the shaft of the femur in a child. The recovery was so perfect, that the limb became firm, and was but little shortened. *Museum of St. Bartholomew's Hospital*, First series, No. 204.

"Fibula. Necrosis of the shaft of the fibula. Reproduction of it perfect. *Museum of St. Bartholomew's Hospital*, First series, No. 158."

We omit much that is highly interesting on the subject of necrosis, in Mr. Stanley's chapter on this part of his subject. We now propose to glance at the treatment which he recommends. In superficial necrosis, he asks, can any thing be done to accelerate the exfoliation of dead bone? and should it be removed by operation. He recommends soothing applications to the soft parts surrounding dead bone ; sometimes more stimulating applications are required to excite action in the parts surrounding the diseased bone.

He recommends for this purpose, soap cerate, combined with mercurial ointment. We must be cautious, however, not to stimulate too much, lest we excite inflammation in the parts, and thus cause an extension of the disease.

In superficial necrosis, we may sometimes aid the exfoliation of the dead bone, by the exercise of the part; for it has been observed that during the repose of the limb, exfoliation remains stationary; but that when its muscles were called into active exercise, the exfoliation was renewed, and went on apace.

When the surgeon ascertains, by probing and the usual means, that the dead bone is loose or detached from the living, he will, of course, proceed, under favorable circumstances, to reach and extract the sequestrum. We need not enter into details, describing the operation required for each bone, when the seat of this disease. For ample information on this head, we refer to the work.

Dismissing thus briefly, the author's long and instructive chapter on necrosis, we would invite the reader's attention to PART II, in which he treats of *Tumors of Bone, etc.*, or those morbid growths which spring from and are attached to bone.

These tumors are various, and assume a great variety of forms, and may be either simple or malignant, or mixed, constitutional, or purely local in their origin.

Some of them are *analogous*, others *heterologous*,—some again resemble the soft parts, and seem to be made up of them; they may spring from either the periosteum, the compact or cancellous tissue of bone.

It is exceedingly difficult to classify these bony tumors; this cannot be done according to their chemical composition, shape, or seat.

Osseous tissue, it has been asserted, is never converted into the fibrous or cartilaginous: whereas, these two latter are constantly being metamorphosed into the former.

Mr. Stanley gives the following as the "*principal products found in the tumors of bone*:"

1. Cartilaginous substance.
2. Osseous substance, which, in composition and arrangement, may in no respect differ from healthy bone, or may present the general characters of ivory; or may be of a dull white color and chalk-like appearance, and of such composition that it can be readily scraped or rubbed into a fine powder. When osseous substance constitutes only a part of the tumor, it is usually situated at its base, in the form either of a solid mass, or of a sort of frame-work supporting the softer constituents of which the rest of the tumor consists.
3. Encephaloid, or brain-like substance.
4. Fibrous substance.
5. Gelatinous substance.
6. Fatty substance.
7. Soft and very vascular substance, of the character of erectile tissue.
8. Fluids of various kinds—sanguineous, serous, or gelatinous.

Other morbid products are deposited in bone; namely, the material of melanosis, and of hard carcinoma, and of tubercle. But these are

not usually accompanied by enlargement of the bone, or by the growth of a tumor from it. Tubercle in bone is considered under the head of scrofula. Melanosis and hard carcinoma in bone are considered each by itself, in a separate section.

The development of entozoa in bone, is in general accompanied by the enlargement of it in a manner to be properly included among its tumors. Accordingly, this subject is considered in the present section.

The production of simple membranous cysts in bone is also included in the consideration of its tumors, as these cysts occasion enlargement of the part of the bone in which they are situated.

Cartilaginous tumors may have two distinct origins—one from the outside, the other from the interior of bone; in the large bones they generally spring from the outside, but they originate from the inner side of the smaller ones. Mr. Stanley describes the cartilaginous substance composing these tumors, as of a blueish or greyish-white color, compact and elastic, but less firm than articular cartilage. Such tumors are of slow growth, and rarely affect seriously the health, unless the process of disintegration or disorganization should commence in them. It is strictly local, and when excised, is not liable to return: it may also, when small, be dispersed by local treatment—such as the application of iodine ointment, and mercurial unguents, to the seat of the tumor. Cartilaginous tissue may also form a component part of several other osseous tumors; in exostosis, for example, cartilage constitutes its primordial structure. Besides exostosis, Mr. Stanley describes under the head “Tumors of Bone,” the ostoid, carcinoma medullare, vel fungus medullaris, the fibrous, gelatinous, fatty, erectile, bloody, entozoic, and those formed of membranous cysts, and those which pulsate.

He reports cases of the above disease, and they will be found of great interest to the practical surgeon, and deserve an attentive perusal.

In Part III, Mr. S. treats of “rickets,” fragilitas ossium, scrofula in bone, carcinoma, and melanosis. Part IV comprehends some excellent observations on “*Morbid growths from the jaws*,” and with diseases of the spine, and affections of the periosteum, the book closes.

It is very evident in every part of this volume, that Mr. Stanley has enjoyed fine opportunities for studying the surgical diseases of bone; and he has here, in a neat and intelligible style, given us the fruits of his experience on the subject.

Mr. Steel, 14 Camp street, has the work for sale.

II.—*Lectures on the Diseases of Infancy and Childhood.* By CHARLES WEST, M. D., Fellow of the Royal College of Physicians, etc. etc. Philadelphia, Lea and Blanchard, 1850.

IN our November number, we announced the publication of the above work, and promised to give, in our January issue, a more extended

and detailed account of the views and practice recommended by the author. This book embraces a series of lectures, addressed to the students of the *Middlesex Hospital*, in the summer of 1847; and the facts and observations therein contained were gathered in the Children's Infirmary of London. During the past nine years, about 14,000 children were treated by the author in the above Institution,—of the diseases of 600 of which, he kept accurate notes, and made, during this time, careful dissections of 180 cases which terminated fatally. If our author has made a judicious use of the facts presented to his notice by this Infirmary, we may expect something very valuable in his work on the diseases of childhood. We shall proceed to examine, without further comment, the merits of the book; and present to our readers, whatever we may chance to find new or instructive.

The first lecture is wisely devoted to an explanation of the difference between the constitutions and peculiarities of the adult and infant; in the first, the organs and tissues of which the body is composed, are fully developed and have ceased to appropriate more of the nutritive material than may be requisite to repair that necessary waste consequent upon functional action; in other words, the organs, both as regards one another and the external world, are in equilibrium—their functions are well established and their duties defined; they neither increase nor decrease, except under certain circumstances, not necessary to specify, and each is, to some extent, independent of the other; not so, however, with the infant; their organs are not yet developed; they may be truly said to be in a progressive state, having a *double* duty to perform;—to appropriate to themselves the necessary nutritive matter for their gradual increase and growth, and to execute those offices or functions indispensable for the preservation of the individual.

In studying and prescribing for the diseases of childhood, we must remember the two conditions above specified; we must not only have regard to present ailments, but we should likewise take into consideration the future changes to which the period of infancy must be exposed in the course of future development: in a word, we must prescribe not only for its present ills, but anticipate those modifications of structure and function which mark the period of puberty.

Dr. West thinks the reason practitioners generally take so little interest in the study and treatment of the diseases of childhood, may be ascribed to the great difficulty of obtaining the requisite information of the little patient, to enable them to form a correct diagnosis. To overcome this objection, he advises patience, close observation, and much gentleness of manner; by these means, we may generally, when aided by an intelligent nurse or parent, arrive at pretty correct notions of the nature and seat of the disease.

In such cases, as indeed among all classes and conditions of life, we must strive to win the confidence of the sick as the first and necessary step towards a cure.

Dr. West lays down some excellent advice, as to the best method of getting at the true seat and character of the disease of children. Prior to a certain age, they cannot express their feelings—their sufferings—their wants; yet all these may, if carefully studied, be correctly inter-

preted; they have a language of their own,—signs peculiar to themselves and expressive of their sensations and their wants, and he will be the most successful practitioner, among this class of patients, who learns to interpret this language—to determine the value of these signs.

By an attentive examination of the eye, we may read the condition of the brain; by scrutinizing the action of the lungs, as developed in respiration, we learn to appreciate the state of these organs. But we have not time to enter into specialities, on this interesting feature of symptomatology, or external pathology; every intelligent physician will readily admit their force and value in a diagnostic point of view.

The second lecture of the author embraces the diseases of the brain, and nervous system; a class of affections notoriously frequent in early childhood, due, says Dr. West, to the rapid development of the brain and the wide variations in the cerebral circulation in early childhood. He also enters into an examination of convulsive diseases in infancy, and likewise ascribes them to the rapid growth of the spinal marrow. But is this the cause of cerebral disease in the first, and of convulsions in the second case? We rather think the frequency of these diseases in early life originates in excessive irritability and great mobility of the cerebro-spinal axis; for surely our author does not mean to say that simply the rapid growth of these organs—their physiological development—a development doubtless necessary to the wants of the entire organs, can be the frequent cause of hydrocephalus, convulsions, or other neurotic affections! If so, nature is greatly at fault, and cannot be competent, in this instance, to accomplish her own work, which work she, in every other department of the organized world, conducts with infinite elegance and perfection. But we shall not take exceptions to these propositions of the author; rather let us follow him, and see what arguments he advances to sustain an assumption, so singularly at war with the harmony and beauty of organic life. That the infant is exceedingly prone to cerebral affections, is unquestionably true; but is Dr. West correct in ascribing it to the rapid development of the brain? Does not the *liver* of the child grow and keep pace with the brain? and is it not relatively, in infancy, fully as large as the brain? and yet how rare to meet with attacks of *hepatitis* in childhood! Will Dr. West explain this circumstance, and reconcile these anomalies? We know the liver is less exposed to the causes of disease, "*cæteris paribus*," than the brain; it does not communicate directly with the external world; it is a sluggish organ; it receives comparatively few impressions; it has but one function to perform—the secretion of bile.* On the other hand, the brain is more delicate in structure and complicated in function; it has both psychological and physiological offices to perform; it receives impressions, judges of them and transmits them, or acts upon them according to the exigencies of the case; it is therefore endowed, as already stated, with excessive mobility and extraordinary susceptibility; hence its great liability to disease in the early stages of life, more particularly, when that organ is tasked beyond its powers. Dr. West's description of the symptoms of cerebral disease are graphic and skillfully enumerated. Passing over many that must be familiar to the reader, we would invite attention to a few of those on which the

* This is not strictly correct—Ed.

author insists: constant and causeless vomiting, a dry hacking cough, often times misleading the inattentive practitioner into the belief that the lungs, and not the brain, is the seat of the disease. Some years ago, we were requested to visit a little boy six or eight months old, laboring, as was supposed by an irregular practitioner, under pneumonia. The little patient had a dry hacking cough; at times embarrassed respiration; flushed face, all regarded by those in attendance as indubitable signs of pulmonary disease. Pectorals, such as syrup of ipecac, hive-syrup were used, etc., etc., and finally a fly-blister was applied to the chest, still the cough continued, and the little sufferer became worse, more drowsy, and at this stage of the case, we first saw it. The pupils were dilated; the head heavy, and the anterior *fontanelle* distended almost to bursting with the effusion of fluid that had taken place upon the brain. Finding the child much reduced, and that the disease had terminated so disastrously, we advised puncture, in order to relieve the pressure upon the brain. To this procedure the parents objected; another physician was consulted, and the child perished the day following, in a state of coma and convulsions.

It is needless to state, that had this case been correctly diagnosed in its incipency, the issue might have been different; the disease might have been arrested by proper and timely treatment. Hence the necessity of a correct diagnosis in the diseases of children, the more important in their early stages, as acute attacks run so rapidly to a close. We have sometimes thought that the recumbent position to which the infant is confined, necessarily, during the greater part of its time, in the early period of life, might tend to encourage the development of cerebral disease. We are not prepared to prove this proposition; it is simply an assumption.

We have not forgotten, however, that Dr. Kellie's experiments are directly opposed to this view of the question; for they go to prove that the quantity of blood in the cerebral vessels is not affected by gravitation, or posture of the head, and that in cases of death by strangulation, suffocation &c., the vessels of the brain are not found congested, as might at first be expected. True, but in those cases examined by Dr. Kellie, after death, the brain had been exposed to those influences but a short time, perhaps a few minutes only; whereas, in the case of the infant, the horizontal posture is maintained, generally three-fourths of every 24 hours, thus causing a constant distention of the blood vessels of the tender brain, and ultimately destroying or impairing their normal tone and elasticity, a condition of things highly favorable to the development of serious diseases of the brain.

We ask the indulgence of the reader for the foregoing digression; and now return to the authors remarks upon the disease of the nervous system.

Dr. West thinks that convulsions in the infant, so frequent in all acute diseases, especially of the encephalon, answer to delirium in the adult. This may be in part correct; but we feel satisfied that there are exceptions to the rule, as many children, even in the midst of convulsive attacks, take cognisance of persons and objects around them, and in various ways evince a knowledge of the dangers of their condition, by

the expression of the countenance, which seems to implore the attendants for relief.

To the predominance of the motor power of the brain, in early life, he ascribes the frequency of convulsions; hence the occurrence of these symptoms in many acute diseases, as in pneumonia, etc., is by no means, he thinks, an evidence that the brain is diseased; it only demonstrates the fact that the attack is so grave as to disturb the equilibrium of the entire organism, in which the brain participates. As a precursor of some eruptive diseases, convulsions are common; but they usually subside as the eruption appears upon the surface of the little patient.

Another fruitful source of convulsive affections at this period of life, may be traced to the great preponderance of the spinal over the cerebral system, a predominance which gradually disappears as the brain is developed, and acquires that degree of mastery over those reflex movements which become evident if disease increase the excitability of the spinal cord. The convulsions which usher in the eruptive and some other febrile diseases in children, answer to the rigors and shiverings which precede and accompany the same affections in the adult.

To show the comparative frequency of deaths from nervous diseases in early life, we give the subjoined statement on the authority of Dr. West:

The first line in this table shows the proportion per cent. of deaths from diseases of the nervous system at different ages, to the deaths from all causes in the metropolis; and the second line the proportion borne by deaths from convulsions to deaths from diseases of the nervous system in general.

Under 1 year.	From 1 to 3 years.	From 3 to 5 years.	Total under 5 years.	From 5 to 10 years.	From 10 to 15 years.	Total above 15 years.
33	20.9	20	26.4	15.9	9.3	9.3
74.2	27.1	18.1	56	10.8	2.7	.9

Deduced from the 5th Report of Registrar-General.

The preceding statement should stimulate the profession to study carefully the various causes of convulsions, so often overlooked, or not well understood, by the inattentive practitioner. The author insists upon the great importance of this question to the medical man, in the treatment of infantile disease. He develops the nature and character of the inquiries to be instituted, in order to trace the disease to the proper cause; enumerates those morbid influences which excite and originate convulsive phenomena in infancy, and indicates the difficulties of arriving at certain and positive information on this subject. The cause once ascertained, the treatment is easy and generally certain in its results. We must examine the state of the stomach and bowels,—inspect the mouth and gums,—scrutinize the spinal marrow and brain: this being done, and the seat and cause of the mischief determined, we shall rarely fail to afford all the relief that the science promises.—Dr. West's remarks on *active congestion* of the brain are highly judicious, and his practice sound, and fully up to the science of the day. He declares that there can be no *stereotyped* rule for the treatment of this affection, as each case may differ from the other, and requires a

corresponding modification in the treatment. In the early and active stage of the case, he recommends depletion, purgatives, such as calomel and jalap—revulsive pediluvia—cold lotions to the head, and fresh air.

Although an uncompromising advocate for blood-letting, in the early stages of active cerebral congestion, Dr. West advises us to watch the effects of the loss of blood in children, since (as they bear the abstraction of this fluid illy,) we might run some risk of, confounding the effects of the loss of blood with its excess; a mistake as disastrous to the little patient as it is unfortunate for the physician.—If the disease, notwithstanding the previous depletion, both local and general, the active purgation and the other usual auxiliaries, continues to rage and threatens the life of the patient, we must look to other means for relief, and the following is thus recommended by the author:

“But it may happen that though the symptoms are increasing in severity, though the convulsions are unchecked, or coma is evidently coming on, yet the state of the pulse forbids a repetition of depletion; or it may even be that you dare not bleed at all, for fear of altogether putting out the life which is in such urgent peril. Fortunately, we have another, and very powerful remedy in store, which we may try in cases where, otherwise, we should be without resource,—this remedy is the cold affusion. There is something, however, apparently so formidable in taking a child from its bed and pouring a stream of cold water on its head for several minutes together, that you will be wise to explain what you are about to do to the child’s friends, and to obtain their consent to the experiment, lest you be compelled by their alarm to desist before you have done any real good. When you have determined to resort to it, the child must be taken out of bed, wrapped in a blanket, and laid upon the nurse’s lap with its face downwards, while you pour a stream of water, from a little height, upon its head. The most effectual way of doing this, though one not always practicable, is to place the child under the cock of a water cistern, or the spout of a pump, since you can then continue the stream, uninterruptedly, for five or six minutes. I have seen some remarkable instances of convulsions arrested, and of children roused from coma, by these means; but you must bear in mind that it is an agent of great power, and you must feel the pulse from time to time, during its employment, lest you should, by its long continuance, produce too great a depression of the vital energies.”

The cold affusion is powerful for good or evil, and it requires much discretion to decide as to its applicability to a particular case. This agent, or rather method of applying one, should not be employed until depletion, both local and general, has been carried as far as the strength of the system will justify; nor until the effects of a thorough purgation have been fully tested.

The foregoing curative means having been put into active requisition, and symptoms of cerebral congestion still manifest, we may boldly resort to cold affusion, in the manner pointed out above by the author. Indeed, it is equally efficacious in certain affections of the brain, at almost any epoch of life. Lecture IV treats of “*cerebral hemorrhage*,”

and its consequences in early life. We shall proceed to give the reader a rapid sketch of Dr. West's views and experience on this subject. We believe it generally conceded that infants are less liable to apoplexies than adults, notwithstanding, Dr. West remarks that "this affection is by no means rare in childhood."

The comparative exemption of infants from apoplexy may be ascribed to the great elasticity and distensibility of the blood-vessels which traverse the brain and its membranes; this elasticity gradually diminishes with the progress of age, and augments in the same ratio, the tendency to rupture. Again the imperfectly formed and yielding character of the cranial bones favors, in a remarkable manner, the dilatation of the cerebral vessels, and thus greatly lessens the chances of rupture and hemorrhage. Whilst on the subject of cerebral hemorrhage, Dr. West wanders, we think unjustifiably, from the subject in hand; he enters minutely into the symptoms and treatment of the *asphyxia of new born children*—a branch of medicine appertaining more properly to, or rather we should say claimed by, accouchers in this and in other countries. From the pressure exercised upon the child's head in its exit through the pelvis of its mother, cerebral hemorrhage is of frequent occurrence during the first few hours after, and sometimes even prior, to birth. Writers, among whom may be mentioned MM. Rilliet, Barthez and Legendre, state that paralysis is so rare as an effect of cerebral hemorrhage in early life, that it was observed by the two first-mentioned authors in but one out of seventeen cases, and by the last author, in but one out of nine cases.

The comparative infrequency of paralysis, as a consequence of an attack of apoplexy, is accounted for by Dr. W., "by the circumstance of the blood being almost always poured out into the cavity of the arachnoid," and thus too much diffused over the surface of the brain to give rise to this symptom.

Hemorrhages do, however, sometimes take place into the substance of the brain in early life, and the effect is then the same as in the adult.

Dr. West informs us that he has met with but two cases of this kind out of more than one hundred and eighty dissections carefully made and accurately noted.

Although the subject of cerebral hemorrhage is fraught with much interest and has been much neglected by writers on the diseases of children, still we must be content with the few foregoing remarks, and pass on to the consideration of other instructive points embodied in the text before us.

Lecture 5th enters into the investigation of the inflammatory affections of the brain—traces the history of acute hydrocephalus—describes in an able manner the symptoms, stages, termination, and treatment of this formidable disease, and concludes with an account of the lesions found after death.

In the treatment of hydrocephalus, we find much to recommend, yet little new or original; the same means, both curative and auxiliary, advised in active congestion of the brain, are equally requisite and suitable for the first-named affection. As Dr. West adopts a very simple

classification, treating, first, of the diseases of the nervous system; second, of the respiratory and circulatory; and third, of the digestive system and their appendage, we shall follow him briefly, very briefly, in the order indicated.

Having already exhausted the space allowed us for the first part of his work, we hurry on to an analysis of the second, or the affections of the respiratory and circulatory systems.

On this part of his course, Dr. West makes the following observations:

"We now come, gentlemen, to the examination of the diseases of those two grand systems of the organism by which the blood is kept in motion, the requisite changes in it are effected, and the animal heat is maintained. Your attention was lately called to the fatality of the diseases of the nervous system in early life, as one grand reason for their attentive study; but this argument is still more cogent if applied to the maladies of the organs of respiration and circulation, since they destroy a far greater number of children, and occasion a mortality almost equal to that produced by diseases of the nervous and digestive systems together. It appears, indeed, from our tables of mortality, that a third of all deaths under five years of age are due to the diseases of the respiratory organs, while not above one child in four dies under that age from diseases of the nervous system, and not above one in six from those of the digestive system.*

"While the study of these diseases is of paramount importance, we meet with inducements to their investigation which in a great measure failed us in the case of diseases of the nervous system. Peculiar difficulties then attended us, and the truth was veiled in so much obscurity that we often saw it but indistinctly; sometimes, perhaps, altogether failed to perceive it. The same means, however, which have enabled us to bring medical knowledge, with reference to the diseases of the chest in the adult, almost to the state of one of the exact sciences, still stand us in stead here, and care and patience will enable us to discover the condition of the lungs with nearly as much certainty in an infant as in a grown person.

"Nor is the greater facility of their diagnosis the only circumstance that lightens their study, but a feeling of hopefulness attends their investigation which we often missed in the subjects that have lately engaged our attention. They, indeed, furnished us with interesting pathological studies; we stood around the sick bed, and watched

* Table showing the proportion per cent. of deaths from different causes in childhood, in the metropolis, as compared with subsequent life.

[Deduced from the 5th Report of the Register-General.]

	Under 1 year.	Be- tween 1 and 3	Be- tween 3 and 5	Under 5	5 to 10	10 to 15	At all ages above 15
From Diseases of the Nervous System,	32.5	19.5	18.3	25.4	15.8	9.7	9.1
From Diseases of the Respiratory System,	38.2	41.	37.2	34.2	30.9	34.1	31.5
From Diseases of the Digestive System,	17.5	13.5	5.2	14.2	6.5	8.3	5.2

nature's struggles with disease that was irremediable, and we traced its effects afterwards as we examined the dead body, but the diagnosis of the affection was in many instances but the sentence of the patient's death; and we often felt that as practical physicians there was but little for us to do. We shall, it is true, meet with many such affections in our study of diseases of the chest, but happily they are few in comparison with those that, in addition to much that would interest the mere pathologist, present still more that will give ample scope for all the skill of the practical physician.

"At first sight, it may seem to you that there can be little in the organs of respiration and circulation in early life different from their condition in riper years. And it is true that the part they play is as important at the first hour of existence, as in the most advanced old age, and that their structure and functions undergo no such changes as we have noticed taking place in the brain during infancy and childhood. But nevertheless they present some important peculiarities in the young, with which you must be acquainted before you can hope to treat their diseases with success.

"The condition of infancy is one of unceasing development; all the organs of vegetative life have, so to speak, double work to do, not merely to supply the daily waste, and to remove effete and useless matter, but to build up that wondrous edifice, the human body. It is probably in great measure on this account, that the blood in infancy and childhood runs its course more rapidly, and that the lungs vivify it more frequently than in adult age. We shall probably not be far wrong if we estimate the average frequency of the pulse in the grown person, when making no exertion, at 75, and of the respirations at 12 in the minute.* In infants not above a week old, the average frequency of the respiration is 39, and of the pulse 102; but the former may rise to 84, and the latter to 140, as the result of some transient excitement or disturbance, and wholly independent of disease. Until the sixth year the average frequency of the pulse continues at 102; and though that of the respiration diminishes, yet it does not fall below 30. The variations between their maximum and minimum frequency are now, however, circumscribed within limits which grow narrower as the child approaches manhood."†

The foregoing statement shows at once the necessity of a careful analysis of all the symptoms attendant upon an attack of the respiratory organs of children, in order to avoid committing the most serious and unpardonable blunders in our diagnosis. We have already furnished an illustrative case of this kind; similar instances of errors in diagnosis might be adduced.

Foremost among the affections of the respiratory organs in early life, is a disease described by Professor Jory, under the name, "*atelektasis*," meaning imperfect expansion of the lungs in respiration. Professor J., gives rather a hypothetical explanation of the cause of this affection;

* This result is afforded by the numerous and careful observations of Professor Vierordt: see his article *Respiration*, in *Wagner's Handwörterbuch der Physiologie*, Part 12, 8vo. Brunswick, 1845, p. 874.

† The chief authority for the statements in the text is the valuable essay of M. Roger, *De la Temperature chez Enfants*, 8vo. Paris, 1844.

it seems, be the cause whatever it may, that a certain portion of the pulmonary tissue, certain lobules, remain impervious to atmospheric air for some time after birth, although the child may have been born at term.

It may be due to obstruction by mucus, of the divisions of the bronchial tubes, leading to these lobules; or to slight effusion of fluid into the air-cells themselves, or to a want of elasticity in the thoracic walls or to feebleness of the muscles of respiration, or to two or more of the above causes united in the same case. Dr. West says, that children, in whose lungs this atelectatic state is found, are apparently still-born, and do not seem as vigorous nor cry as lustily as those born under more favorable auspices. The child born in the former state sleeps much; has a full voice, and rather whimpers than cries; and the chest is scarcely seen to move in the act of respiration. The temperature falls below the healthy standard, as might be expected; the surface assumes a pale appearance; the lips grow livid, and the muscles of the face sometimes move convulsively.

To give the reader a more exact idea of this affection, we transcribe, from the work before us, the following case:

"A little boy, three weeks old, was brought to me at the Children's Infirmary on March 13, 1846. He was puny, emaciated, with a cold surface, and bloodless conjunctivæ. His face, which was wizened like that of an old man, was occasionally distorted by slight convulsive twitches, and these fits, as the mother termed them, were, according to her account, sometimes much more severe. The abdomen was tympanitic, and it alone was seen to move during respiration, there being almost no lateral expansion of the chest. The ear applied to the chest heard but little air entering, and the cry was a stifled whimper, in which none of the inspiratory sound, the *reprise* of the French writers, was distinguishable. The child sucked difficultly, and had wasted ever since its birth, though no diarrhœa existed, but the bowels, on the contrary, showed a tendency to constipation.

"The chest was rubbed twice a day with stimulating liniment, and a mixture was given containing some ammonia and the compound tincture of bark. Under this treatment the child appeared to improve; it began to breathe less rapidly and in a less labored manner, and its cry became louder. The parents, however, were miserably destitute, the mother in an ill state of health, so that her milk afforded but a very imperfect sustenance for the child. From the beginning of April he grew less well, and began to have occasional attacks of general convulsions, in one of which he died on April 26th, 1846.

"On examining the body large portions of both lungs presented the appearances which I have described as characteristic of their imperfect expansion, but inflation restored them to a crepitant state. Some patches, however, though they admitted air and assumed the same color as the rest of the lung, yet could not by any effort be dilated so completely as to rise to a level with the surrounding tissue. The foramen ovale was open, the margin of the valve for fully half its circumference not being adherent, although the valve was sufficiently large for its closure. The ductus arteriosus also was quite permeable, although of considerably less calibre than during foetal life.

"This case affords a very good specimen of one way in which the af-

fection leads on to a partial termination; but sometimes, and probably in those instances in which the affected portion of lung is less considerable, a less formidable train of symptoms ushers in the fatal event. Convulsive twitchings, such as I before mentioned, do not occur, nor are periodic exacerbations of the symptoms observed, but the child is merely feeble and its breath is short, and it has an occasional cough. It sucks, though with difficulty, but it loses flesh, the bowels become disordered, and medicine is unable to restrain the diarrhœa. The unchecked diarrhœa increases the emaciation and exhaustion of the child, which dies at length worn out and wasted to a skeleton."

In another case, with symptoms like the above, the child recovered. The treatment consisted of a warm bath; an emetic every night; the chest, both in front and rear, was rubbed night and morning, with a stimulating liniment, and the face sprinkled with cold water, when the fit became imminent. Under this treatment the child gradually improved, and at the end of the fifth day, Dr. West gave small doses of the ferro-citrate of quinine, and suspended the previous emetic treatment.

After this, the child rapidly improved, as manifested by a louder cry; a more cheerful look; less cough; a freer expansion of the chest, and diminished dullness on percussion at the lower part of the chest. The only disease with which this peculiar affection of the lungs might be confounded, is congenital phthisis—certainly a rare disease, but readily distinguished from the fact that the former complaint dates from the birth of the patient, whereas tubercular disease rarely proceeds so far in early life as to interfere seriously with the functions of the lungs.

We have dwelt the more upon this subject, because writers on the diseases of infants have either been silent on this question, or merely given it a passing notice. We might enumerate a number who have not made a single remark on this peculiar disease of the lungs, although they have written voluminously on those diseases commonly to be met with in children.

The following plan of treatment of this affection seems to us rational and founded upon the presumed pathology of the disease. We give it in the words of the author, and do not hesitate to pronounce it sound:

"The treatment required by this affection need not detain us long. The importance of maintaining an equable temperature around every child in whom respiration is not duly performed, cannot be too much insisted on; and the power of generating heat being as you know much diminished, this temperature ought not to be below 70°, and in bad cases may be even 10° higher. Besides attending to preserve this warmth around the child, benefit often accrues from the employment of the hot bath, once or twice every day, at a temperature of 100° Fahrenheit, to which mustard may be added to render it more stimulating to the surface. The child should not be allowed to remain longer than five minutes in the bath, and should be enveloped in hot flannels immediately afterwards to prevent its taking cold. The back and chest should be rubbed twice or oftener every day with a stimulating liniment, as camphor, or soap liniment, which may be diluted with a little oil, if it be too irritating to the skin. If the child be very feeble, stimulants

may be given, of which there are none better than the compound spirits of ammonia or ether; or the *spiritus ammoniæ succinatus*; the unpleasant pulgenciy of which remedies is concealed by milk better than by any other menstruum. The daily employment of a gentle emetic of *ipecaeuana* has in some instances appeared to be of service, not merely by relieving the air tubes of any mucus that may have accumulated there, but by inducing several deep inspirations, and thus aiding the complete establishment of respiration. As the child improves, the more directly stimulating medicines may be withdrawn, and tonics substituted for them, among which none are better than the extract of cinchona. Its bitter is not unpleasant, and when duly sweetened and mixed with a little milk, few children refuse it. It has, too, the great advantage of not disordering the bowels; a point of no small importance in any case in which diarrhœa is likely to occur. In some cases there is a sluggishness of the bowels, and a deficiency in the secretion of bile; very minute doses of the *hydr. c. creta* will often remedy the latter, and the use of a soap suppository will frequently render the internal employment of any purgative needless. The child should be put to the breast unless it be very feeble, but in that case should not be allowed to exhaust its strength in fruitless attempts to suck. It will be better to draw the breast, and give the child its mother's milk by means of a spoon or from a bottle, which latter plan has this advantage, that while it costs the child but little effort to get its food we avoid the risk of its forgetting how to suck, an inconvenience which attends the use of the spoon, if continued for any length of time. Artificial feeding is not at all desirable in such cases, though sometimes, if the child be very weak, it may be necessary at first to give a few drops of brandy in its milk every three or four hours. This plan of treatment must be patiently persevered in, nor must the supervention of symptoms of an apparently acute character induce too wide a deviation from it. The head symptoms in particular must be combated cautiously, lest by too great a solicitude to overcome them we destroy the patient rather than the disease."

Inflammatory diseases of the respiratory organs of infants are of frequent occurrence; and if not early combated, frequently prove fatal in a few days. The reader is doubtless well acquainted with the symptoms, and best mode of treating this disease, and we shall therefore pass over this part of the book, remarking, however, that Dr. West has displayed great learning and experience in the pulmonary affections of children.

But we are extending this "notice" to too great a length; we leave with regret, for the present, the writings of one who has shown himself a close observer of the phenomena of disease, a skillful practitioner and a true medical philosopher.

The book is now before the profession, and we are much mistaken if it does not become a standard work on the diseases of children; at least, it is much superior to works generally on the same subject. The style is neat and perspicuous, and betrays the man of letters, no less than one familiar with the abnormal changes of the animal organism. To the indefatigable and liberal publishers, we are indebted for an elegant copy of the work, and we believe they will be richly rewarded for this 1e. publication of so valuable a book.

III.—*Inflammation; its symptoms, causes, and treatment*, philosophically considered. By J. P. BATCHELDER, M. D. New York, 1849.

THIS is a neatly printed pamphlet of 66 pages, in which the author studies, philosophically, the various stages, and the different phenomena presented in the progress of inflammation. We have had the satisfaction to speak favorably, on a former occasion, of the author's acumen and research, as displayed in his investigations of cholera, and other medical questions. Dr. B. believes, (we suppose,) and endeavors to prove that the "proximate cause of inflammation consisted in a decreased action of the capillaries pertaining to the inflamed part," and that this condition of the capillaries was the direct cause of the over-distention, which was in truth inflammation itself—and nothing but that!—Having declared the above proposition, he glided to the easy conclusion that depletion was the remedy—certainly not original with the author, since leeching and cupping, fomentations and blisters, were employed for this purpose, in the good old days of Celsus, Galen, etc.

If we are not in error, Dr. Batchelder advocated the same doctrines in regard to the cause of cholera, in his late essay on that disease; he therein maintained that the contraction of the capillaries took place throughout the system—more particularly in the periphery of the body, and hence the phenomena of the disease. We leave the author in the dilemma in which he has unwittingly placed himself, and trust that he may be enabled to reconcile these apparently conflicting assertions.

Let not the foregoing remarks lead the reader to conclude that Dr. B. is a poor writer and an unsound philosopher; far from either,—he reasons much and well, and approaches his conclusions step by step, and with all the circumlocution and rotundity of style of a polished scholar.

In justice to the author, we copy the subjoined observations on the *proximate cause of inflammation*, and leave the reader to judge for himself:

"By the proximate cause we mean, 'That phenomenon in the body or part, most immediately preceding the state which we call disease; and without which previous phenomenon the disease is not known to exist.'*" Two theories relating to the proximate cause of inflammation have been promulgated, which are diametrically exposed to each other. On the one hand, it has been urged that increased action is the proximate cause: on the other, diminished action; and in the maintenance and vindication of both there has been no lack of zeal, ability or ingenuity, on either side.

"In reference to the first we respectfully ask: Does increased action constitute 'that phenomenon which immediately precedes the state which we call disease, and without which previous phenomenon, the disease (inflammation,) is not known to exist?'

If the exciting cause induce contraction of the minute vessels, the only mode of increased action of which they are capable, the fluids they contain will be forced out, and they (the minute vessels) will in con-

*The above is Parry's definition of the cause,—the best extant.

sequence be reduced to a state of comparative depletion; a condition utterly incompatible with the existence of inflammation, which requires as the very essence—the *sine qua non* of the disease, an absolute distention, or over-distention of the capillaries. Believing, however, that the very best method of getting rid of a false theory, is to establish one that is true, and particularly as we wish to avoid even the semblance of aggression, we shall push this point no farther, but turn our attention to the opposite theory.

“It is admitted by all that there is more blood in a part when inflamed than in a state of health: and it is also affirmed by microscopical observers that the fluid moves through the vessels of the part affected with greater rapidity than when the circulation is normal; but these facts, if indeed the latter be a fact, have no relation whatever to the proximate cause, which relates solely to the manner in which the increased quantity of blood gets into the vessels. An agent, acting mechanically, chemically, or physically upon any part of the system, which makes an impression exterior to the vessels stronger than that made by the fluids within will in obedience to the law that the stronger effaces the weaker impression, induce them to forego their resistance; and yielding, allow themselves to be distended, or over distended until they resist painfully. We have then distention of vessels, the primary symptom; redness, the second; and pain, from resistance, the third; the trio, which constitutes the formal and technical existence of the disease—the assemblage by which it is recognized. Now, what but diminished action could have preceded this “state which we call disease?” Had the action of the capillaries been increased, no such result could have followed, even by possibility: neither could it have occurred if those vessels had not relaxed, yielded and suffered themselves to be distended or over-distended. We infer then the proximate cause of inflammation is a suspension of the normal resistance; a relaxation; a yielding; a diminished action of the capillaries of the part that admits, upon hydraulic principles, of the inflowing of fluids by which they (the capillaries, are over distended. This want of action, this non-resistance, continues until the distention has proceeded so far as to excite actual resistance in the capillaries, and then, and not till then, can we affirm the existence of the disease. The action of the vessels is then increased. This increased action, the final end and natural consequence of which is, not only to prevent the additional influx of fluids, but to force them out of the inflamed part, constitutes the true *vis medicatrix nature*; for it causes, or attempts to cause, and if successful does cause, the reflux of fluids into the general circulation, which is equivalent to an evacuation by art. In both instances the vessels are depleted. This result, (the depletion of the vessels,) we deem, as before stated, the only legitimate termination of inflammation—whether brought about by the efforts of nature, by remedies, or the conjoined operation of both.

“It has been asserted, that there is not only more blood in an inflamed part, but that it moves through it more rapidly than in health, and that there is, therefore, an increased action. Neither of these facts concerns the proximate cause; the stage of the disease having gone by for that. Relating wholly to the proximate effect, they confirm our doctrine.

"The exciting causes of inflammation, as we have shown in a former paper, diminish resistance in the capillaries—venous as well as arterial; consequently, as much, and even more blood will be admitted into them, and transmitted through the inflamed part than in health. But this condition of things cannot last long; because the fluids changed in their chemical and physical properties, will be forced in every direction upon vessels which have not been subjected to the exciting causes, and therefore do not participate in the morbid actions of the part. Those vessels, thus acted on mechanically, by fluids chemically and physically altered, promptly set up a resistance to the *vis medicatrix naturæ*, the exertion of which is to force the fluids out of the vessels of the inflamed part; a result which may be, and most generally is, prevented by the aforementioned resistance of the surrounding vessels. A pause new ensues; the fluids stagnate in the centre, around which, and towards the circumference, the vessels being distended to a degree which constitutes congestion, relieve themselves by the effusion of fibrine, with which the blood abounds during the phlogistic state. The fibrine, the effusion of which has depleted the vessels, becomes organized, and furnishes a barrier to the further extension of the mischief. Beyond said barrier, serum is poured out in such quantities as to occasion the œdema that often accompanies inflammation, and evinces diminished intensity wherever it exists.* For the foregoing reasons we have come to this conclusion, that decreased action is the proximate cause of inflammation."

Inflammation has excited much discussion in the profession; and it was not until the microscope was brought to bear on the question, that anything like definite notions of its real nature could be formed—Even at this time much discrepancy of opinion obtains in the profession, as to the actual condition of the parts inflamed.

Some maintain that the fluids move slowly through the vessels; others that they are accelerated; again, not a few insist that the blood is first impelled forward with greater velocity, and the vessels, subsequently becoming surcharged, yield to the mechanical pressure from within, and lose all power of contraction, all tonicities. Certainly inflammation may be regarded as presenting, in its various stages and different grades, several phenomena; and to comprehend the whole, we must study it in all its stages, and in different textures of the body. Miller of Edinburgh and Williams of London, have each written ably on inflammation; but after all, the treatment is about the same, because the same indications obtain now as in the days of Hippocrates.

The most philosophical view yet advanced on this subject, is that put forth by Andral in his work on pathology; for which vide *ibid*.

After having examined into the nature and proximate cause of inflammation, Dr. Batcher proceeds to point out the indications of treatment to be adopted. The paper throughout is argumentative and indicates that Dr. B. is a writer of no ordinary abilities.—We are under obligations to the author for a copy of his pamphlet.

*This œdema is very apt to take place as above described, in inflammations of the larynx, and particularly about the glottis, and constitutes the principal cause of danger in many of these cases, especially if conjoined with spasms of the muscles belonging or appertaining to those parts. We shall consider this effusion of serum in connection with another part of our subject.

III.—REPORT of the Proceedings of the Sanatory Committee of the Board of Health, in relation to the CHOLERA, as it prevailed in New York, in 1849.

From this Report, we learn that the *first* case of cholera in New York, was announced on the 14th of May, 1849, at the "Five Points," a locality celebrated for its filth and immorality; and where, it appeared, every circumstance, requisite to originate a pestilence, existed at the time. Several other persons were likewise attacked at this Point, soon after the first was reported; these were immediately removed to a suitable, but temporary hospital, established for their accommodation. It seems that the committee, to whom we are indebted for this Report, was much embarrassed as to the most suitable location for the establishment of an hospital;—finally, however, and after having consulted the profession and other authorities on the subject of the contagious nature of cholera, the Sanatory Committee adopted the opinion that the disease was not communicable from one individual to another, except in rare instances, and acting up to this belief, they selected the "Monroe Hall," at the corner of Pearl and Centre streets," in the vicinity of the "Five Points," a situation at once elevated and easy of ventilation.

Dr. W. P. Buel was appointed to the superintendence of the hospital; and all the cholera patients, among the poor, were immediately, on being seized with the disease, transported to this place for treatment and nursing. The Sanatory Committee made a visit, in a body, to the "Five Points," and gave such orders as the filthy nature of the place, and the exigency of the occasion required, to purify and disinfect that loathsome—that worse than Augean spot.—The committee, with the laudable object of averting the impending danger, with which the city was threatened, had in view the following "important facts:" 1st, That the general cause of the disease appears to exist in the atmosphere: 2d, That in attacking individuals, the disease generally gives notice of its approach by some preliminary symptoms: 3d, That these preliminary (premonitory) symptoms are usually under the control of medicine, and being arrested, the farther development of the disease is prevented: 4th, That the agency of various exciting causes is generally necessary to develop the disease. The committee enumerate among the principal of these causes, filth, want of ventilation, and imprudent eating and drinking.

Again, the committee proceeds:

"With these facts in view, the duties of the Committee were obvious, and they conceived them to be the following:

"In the first place, to provide public hospitals for the reception and treatment of those actually attacked with the disease, and who, from poverty or other causes, might be deprived of the means of being attended to properly, at their own homes.

"In the second place, to adopt such measures as might counteract the development and extension of the disease, by obviating, as far as possible, all the exciting causes of it, and also, by prompt medical assistance, arresting the disease in its preliminary stages.

"With these objects and purposes in view, the Committee commenced and continued their labors throughout the whole course of the cholera. They established hospitals in such succession and in such parts of the city, as the spreading of the disease required, until the whole number amounted to five. They commenced and accomplished a thorough purification of the city, such a one as the city probably never had before. Through repeated publications from the Medical Council, they kept their fellow citizens constantly alive to the important fact that the progress of the disease depended, in a great measure, upon their own discretion in their modes of living. They endeavored to inspire them with moral courage, as one of the best preservatives against disease; and finally, they supplied the city with such an abundance of medical attendance as that every person might have the benefits of immediate advice and attention."

In the mean time, the *Medical Council* made and published a formal, but short address, to the public, in which they recommended the usual precautionary measures, now universally acknowledged; not content with general hygienic rules, a list of "preventives of cholera" was made out in the shape of hand-bills, and distributed throughout the city—that he who ran might read. It was done in the name of the Mayor of the city.

We have already stated that one hospital was established under the care of Dr. Buel; subsequently, four others were appropriated for poor patients;—one under Dr. A. F. Vache; one under Dr. A. P. Wells, and one under Dr. J. Green—the one originally established under the care of Dr. Buel was transferred to another medical superintendent.

Let not the alopaths flatter themselves that their allies, (!) the homœopaths, were idle spectators of this division of the spoils,—far from it; for on the 14th of June, a "petition was sent into the Board of Health, requesting the establishment of a cholera hospital, in which patients might be treated on the homœopathic plan." Said petition was referred to the Sanatory Committee, by whom it was again, and wisely, referred to the Medical Committee, who made the following enlightened report thereon:

"NEW YORK, June 19th, 1849.

"A resolution having been offered to the Board of Health, 'that a hospital for the reception of cholera patients be established in this city, in which the practice of homœopathic physicians shall be pursued,' and the same having been referred by the Sanatory Committee to the Medical Council, the undersigned state that should the above resolution be adopted, they see no satisfactory reason why the same courtesy should not be extended to the Hydropathists—the Thompsonians—the Chrono-thermalists, and indeed all others claiming to have specific modes of treating the cholera.

"By intelligent and well educated physicians generally, homœopathy is looked upon as a species of empiricism. It is neither practised by them, nor countenanced by them. Concurring entirely with their professional brethren on this subject, the undersigned conceive that the public authorities of our city would not consult either their own dignity

or the public good, by lending the sanction of their name or influence to homœopathy, or any other irregular mode of practice."

JOHN B. BECK, M. D.,	}	<i>Medical Counsel.</i>
JOSEPH M. SMITH, M. D.,		
SAMUEL W. MOORE, M. D.,		

With great good sense and becoming dignity, the Sanatory Committee, after having given their reason for so doing, adopted the Report of the Medical Council, and thus rejected the petition of the "*Infintessimals*."

About the 21st of July, the cholera reached its culminating point, and after this date it began to decline rapidly, and by the eleventh of September, the daily reports were suspended, as being too small to interest the public.

We take from this "Report" the following statistical table, and believe it will interest the scientific reader :

The following table exhibits the weekly mortality in the city of New-York by Cholera, and that from bowel complaints, during the last twenty-two weeks, May 20th, to Oct. 14th, and also the same during the corresponding periods of last year.

1848.												
WEEK ENDING.	Total mortality.	Cholera asphyxia.	Cholera infantum.	Cholera morbus.	Diarrhœa.	Dysentery.	Inflammation of the stomach and bowels.	Other diseases of stomach and bowels.	Mortality from bowel complaint	WEEK ENDING.	Total mortality.	Cholera asphyxia.
May 20	385	...	2	3	3	5	14	2	26	May 19	323	1
" 27	247	...	5	4	4	4	11	2	26	" 26	294	13
June 3	228	...	4	...	2	4	6	1	17	June 2	270	29
" 10	245	...	4	...	1	7	8	...	22	" 9	409	121
" 17	250	...	7	2	5	4	9	2	37	" 16	425	145
" 24	263	...	8	...	4	4	9	2	30	" 23	473	152
July 1	288	...	22	...	5	5	13	1	55	" 30	734	286
" 8	285	...	29	...	8	11	19	...	76	July 7	702	317
" 15	284	...	26	4	10	18	19	...	83	" 14	991	484
" 22	299	...	29	...	13	24	18	2	83	" 21	1409	714
" 29	403	...	52	6	19	26	14	1	90	" 28	1352	692
Aug. 5	368	...	44	3	12	41	20	1	142	Aug. 4	1278	678
" 12	338	...	52	1	22	41	19	2	120	" 11	1011	423
" 19	351	...	46	...	10	46	14	...	115	" 18	968	387
" 26	331	...	37	2	18	34	13	1	104	" 25	749	233
Sept. 2	309	...	31	1	20	37	12	...	106	Sept. 1	687	171
" 9	278	...	22	2	11	33	17	1	83	" 8	520	94
" 16	282	...	27	1	13	38	14	...	93	" 15	378	36
" 23	261	...	17	...	7	22	7	3	56	" 22	366	21
" 30	236	...	9	...	3	27	8	1	48	" 29	319	11
Oct. 7	271	...	6	1	12	28	10	1	60	Oct. 6	312	6
" 14	260	...	3	3	8	19	12	4	44	" 13	249	3
Totals	6362	...	492	27	227	518	291	24	1565	Totals.	15219	5017
										1849.		
										Cholera infantum.	Cholera morbus.	Diarrhœa.
										Dysentery.	Inflammation of stomach and bowels.	Other diseases of stomach and bowels.
										Mortality from bowel complaint		
										1	10	29
										...	16	37
										1	11	69
										3	13	181
										...	15	183
										...	16	211
										1	18	389
										...	7	415
										...	14	680
										...	29	1011
										2	16	970
										3	26	944
										2	21	683
										3	18	652
										6	17	461
										3	11	375
										1	12	239
										3	12	160
										2	16	128
										...	16	105
										1	12	79
										1	18	63
										34	344	8064

The physicians, at least some of those attached to the temporary hospitals, established under the auspices of the Sanatory Committee, declared the disease to be precisely similar, in all respects, to the disease, everywhere recognized as Asiatic cholera; "*that the disease originated de novo, this season, [1849] at 20 Orange street, and that no connection, mediate or immediate, by persons or things, has been traced or alleged to exist between the disease prevailing at 20 Orange street, and any similar disease, in any other locality.*"

We deem it useless to give any particular account of the mode of treatment recommended and practised by the medical faculty of New York. They, it seems, like other honest and conscientious men, have failed to discover any specific remedy for this fatal disease. They relied upon opiates, camphor, astringents, both vegetable and mineral; the milder preparations of mercury, but in small and oft-repeated doses; counter-irritation, etc. etc.

Taken collectively, this Report is highly interesting, and embraces a large amount of useful statistical information. We return our thanks to the Sanatory Committee, for kindly furnishing us with a copy.

IV—THE THREE KINDS OF COD-LIVER OIL; *comparatively considered with reference to their chemical and therapeutic properties.* By L. J. DEJONGH, M. D., of the Hague. Translated from the German, with an appendix and cases. By Edward Carey, M. D., Philadelphia. Lea & Blanchard, 1849.

This work was originally written in the Latin language, and published at Leyden, by Luchtman, and afterwards translated into the German with additional and full notes. It enters into the history, mode of preparation, chemical composition, therapeutic properties, &c., of the various kinds of cod-liver oil. With an account of all this we shall not trouble the reader; it is given with true German minutiae and exactness; but we of the present day do not stop to inquire into the theoretical merits of questions—we look to results—we aim to accomplish ends. Nor shall we attempt to give an analysis of the three kinds of oil mentioned in the work; this we published in a former number of the journal.

We propose to notice, however, the reputed therapeutic properties of these oils, and leave the reader to decide for himself.

In chronic rheumatism, we have the authority of Alexander, Knova Von Helmenstreit, Rust, Amelung, a Roy, Brefeld, Basse Felir, Molt, and a number of others in its favor. These writers assert, after a full trial, that we have nothing in our *Materia Medica*, equal to the cod-liver oil in chronic rheumatism; that it indeed acts like a charm in this usually obstinate affection. Zittman used the oil with perfect success in gout in the hospital in Utrecht. It is beneficial in some forms of

paralysis, and in all forms and stages of scrofulous disease. The reputation of cod-liver oil is firmly established, not only among the Germans, but likewise to some extent among the practitioners of Europe.

We may enumerate, in a word, the following affections and conditions of the system, in which the cod-liver oil has been eulogized by different writers of reputation. All scrofulous diseases, whether seated in the external or internal structures or glands; in scrofulous ulcerations; induration and enlargement of the glands; in atrophy associated with swelling of the mesenteric glands; in the chronic *exanthemata*, especially of a furfuracious character.

It may be used both internally and externally, and, it is said, with the very best effects. Hauff praises the cod-liver oil as an external application, in the cure of irritable tetter. Brefeld has succeeded in curing, by the internal use of this oil, many obstinate cutaneous diseases; such as scabies, dyscrasiæ furunculosa, syphilitic blotches, &c. Schenk commends this oil in the treatment of herpes faciei, vesiculosus, crustaceous ulcerous; it must be given for three or four months in these chronic affections, to effect a cure. In psoriasis and porrigo, of every variety, Hass was quite successful with the oil. Schuttle and Ammon laud the virtues of the oil in scrofulous ophthalmia; and Brefeld smeared the lids with the pale oil in scrofulous inflammation of the tarsi, and he asserts, cured several cases by this means.

In cases of *rachitis* the oil is almost a sovereign remedy, and Brefeld, who has treated over one hundred cases of this disease, asserts that in this complaint, it is almost a certain cure, and may be relied on with every assurance of success.

In *Osteo-malacia—caries scrofulosa*, in all the diseases of bones originating in a scrofulous diathesis, the oil is said to be highly efficacious, and will, under favorable circumstances, bring about a cure.

The book closes with a description of many of the diseases already mentioned, and the treatment of them by the oil; they embrace a long list of obstinate affections; yet the remedy rarely failed to check, if not to eradicate, the disease.

Every practitioner of medicine should examine this little work, and test the practice here recommended, because the oil seems applicable to a class of complaints not generally amenable to the remedies heretofore at our command.

If we are to credit one-half that is contained in this work, the cod-liver oil is destined to rid the community of a number of diseases formerly regarded, on this side of the Atlantic, as in a great measure incurable.

We cannot but think this medicine has not been sufficiently tested in this country; at all events, it has not yet commanded that confidence in its virtues with which our German brethren seem to be inspired.

We commend the book to those of the profession who may be anxious to keep pace with the progress of German *Therapeutics*, and ask them to read the work before they *pro-scribe* the cod-liver oil in their practice. It is scientific in its character, and may be perused with advantage by the profession at large. Mr. White, at 53 Canal-street, has a number of copies of the work for sale.

V.—*Address on Free Medical Schools in the Rush Medical College, Session 1849-50, Chicago.* By. N. S. DAVIS, M. D., Professor.

Professor Davis was at one time editor of the *New York Annalist*, but he was, a short time since, called to a chair in the Rush Medical College; and in assuming the duties of teacher, he delivered to the students the above address. After noticing, in a rapid but spirited manner, some of the obstacles to the advancement of medical science, and particularly to the low state of the profession, Professor Davis comes boldly out, and advocates the establishment of *free medical schools* throughout the country. After having argued this question upon its own merits, and shown the advantages, (as he supposes,) of free medical schools, both to the profession and the public, he proceeds in the following strain:

“Finally. The present expensive system not only contributes much to the general prevalence of all forms of quackery, but by compelling a large proportion of regular students to accept of a very limited amount of medical knowledge, it fosters a class in the profession which serves the same purpose in the medical, that the zoophyte or sponge does in the animal world, viz.: to form the connecting link between the truly enlightened portion of the profession and the downright quack; thereby rendering it impossible for the community to draw a well defined line of distinction between the two. It contributes to the general prevalence of quackery, by inducing many, who, in this free country, are determined to be “doctors,” at all hazards, to embrace some one of the numerous special systems that can be learned in a week, or a month, instead of attempting to encounter the embarrassments of a full and regular course. And that it greatly limits the amount of medical knowledge and consequent skill, which a very large proportion of those who enter the profession are desirous of obtaining, is too evident to require a word of comment. Hence, in whatever aspect we view the subject, candor compels us to acknowledge that the present system of medical instruction is alike injurious to the schools, unjust and embarrassing to the profession, and greatly detrimental to the best interest of the whole community.

“Such, gentlemen, are briefly my views concerning the great and important subject of medical education; and I am happy to inform you that they are so far conceded in by my colleagues, that we have resolved to commence the work of reform at once, and in earnest. As proof of this, we this session offer to all the matriculated students of the college the tickets of three of the Professors free of charge. And it is our settled policy to go still further another year, and not stop until all are alike gratuitous to the faithful cultivators of our noble science. Nor is this all. For we shall extend our lecture terms, and our means of instruction, as far as our circumstances and your interests will permit. And we confidently anticipate being able, at the commencement of another annual session, to introduce you into the wards of a permanent hospital, affording ample material for a system of clinical instruction, fully adequate to your wants. In return for a policy so liberal on our

part, we confidently look to you, and those who may follow you, for a corresponding improvement. We hope and expect that, as our charges are now reduced to nearly one-half, with a still further reduction in prospect, you will be in less haste to terminate the period of your pupilage, and that a much larger number will be enabled to attend three full courses instead of two, before asking for the high degree of doctor of medicine. If this should be the result of our present policy, and we should in future see our alumni going out more fully prepared to do battle with the king of terrors—if we should find them everywhere exhibiting a broader distinction between the truly scientific practitioner and the mere pretender—in a word, if we should find, by experience, that the change has contributed something towards the accomplishment of a more complete system of medical education, and a more elevated practical standard of attainment, we shall feel fully compensated for any temporary pecuniary sacrifices which it may cost us.”

What say the learned Professors in our Medical Colleges, to these innovations upon their annual income? Will they consent to perform their laborious and responsible duties without “money and without price?” We are free to admit our uncompromising opposition to any such a scheme. The price of a medical education is now far too low; hence the great amount of poverty, every where to be witnessed in the profession.



VI.—*Surgical Anatomy.* By JOSEPH MACLISE, *Surgeon, with Colored Plates.* Philadelphia, Lea & Blanchard. Part First, 1850.

The object of this work, in the language of the author, is to present to the students of medicine and practitioners removed from the schools, a series of dissections demonstrative of the relative anatomy of the principal regions of the human body. The author is indifferent as to the title of his work; it may be styled surgical, regional, descriptive or topographical anatomy—the object is the same; and as far as this, the first part goes, he has succeeded to the satisfaction of the most critical. The colored plates are at once beautifully and correctly drawn, and will convey a distinct idea of that part of anatomy, sought to be developed by these plates. The text, explanatory of the work, seems simple and quite intelligible; and the whole, taken altogether, promises to supersede many similar works, now regarded as standard authority. Every student and practitioner of medicine, should furnish himself with a copy of the work, particularly such as may be denied all opportunities of dissection. The liberal publishers will accept our thanks for the first Part, through Mr. White, 53 Canal street, who has the work for sale.

VII.—THE PRACTICE OF SURGERY : *embracing Minor Surgery and the application of Dressings, etc.* By JOHN HASTINGS, M. D., U. S. N., etc. *With numerous illustrations.* Philadelphia, Lindsay & Blakiston, 1850, p. 470.

This very neat volume on the practical part of surgery, is an excellent guide-book for the medical student and the young practitioner. It is confessedly a handsome compilation, and is carefully and industriously prepared and neatly printed. The illustrations are numerous and well executed, and we are pleased with the book, considered in all its parts. Dr. Hastings is more happy in preparing his compendium of surgery than in writing and lecturing on the yellow fever. Whilst we would commend this work to the student, we should not neglect to deprecate the practice, in some instances, of confining our reading too much to such hand-books, to the exclusion of more elaborate and more comprehensive productions on medical and scientific subjects. Mr. Steel, 14 Camp street, has the work for sale, and we would advise medical students to procure a copy for examination and reference.

VIII.—*Observations on the spread of Asiatic Cholera, and its communicable nature.* By JOHN EVANS, M. D., Professor in Rush Medical College. Member of American Association, etc. *From the N. W. Med. & Surg. Journal, (Chicago,) 1849, p. 43.*

After indicating in a brief and hurried manner the progress of cholera in this country; its starting points; its route from one place to another; along the great thoroughfares of trade and commerce; Professor Evans concludes his remarks, after a careful review of all the facts, by declaring his belief in the contagiousness of the disease. He says, "Notwithstanding neighborhoods of limited extent seem so be brought under the influence of the poison, do not these facts show conclusively, that the disease is communicated? That it is self propagating? That in its action on the system it develops the morbid agent which is extended to others? Professor Evans makes out a strong point, and is in part correct.

Part Third,

EXCERPTA.

I.—*Medical History of two Epidemic Yellow Fevers, Translated from the French, with notes By the Editor.*

Of Yellow Fever in General.

CHAPTER I.

Historical. "When pain in the loins is propagated to the stomach; when it excites fever, horripilations; when it produces thin aqueous vomiting; determines delirium, loss of speech, the patients succumb with black vomit."

This passage from Hippocrates is the only allusion we find applicable to the Yellow Fever in the writings of the ancients. It is even very remarkable that a considerable period of time should have elapsed after the discovery of the New World before writers began to advance any positive opinions upon this disease, yet, it is probable that the great mortality among the first Europeans who established themselves in the Antilles, was due to the Yellow Fever; perhaps it prevailed at that time among the natives, but at stated epochs or periods, as the observations of M. de Humboldt when in Mexico, would lead one to suppose; since, finding suddenly new subjects by the arrival of a great number of unacclimated individuals, it then assumed the characteristics of an Epidemic.

The history of the origin of Yellow Fever is extremely obscure; thus many writers believed that it was transported in 1682 from Siam to Martinique, by the ship *Oriflamme*, which in its course touched at Brazil, where, during seven or eight years, this disease committed great ravages. But many objections have been urged against this supposition: 1st, If the Yellow Fever raged at Brazil, that of Siam was of no consequence or importance; 2d, It is impossible to say from whence proceeded the Epidemic of Brazil; 3d, Moreau de Saint Mary assures us that the *Oriflamme* did not arrive at Port Royal until 1690, and that it did not touch at Brazil; 4th, Lastly, Dutertre, the father, in his *general history of the Antilles*, speaks of a disease that broke out there in 1635, which was called "*coup de lavre*," and which was ascribed to the Yellow Fever. Mosely and J. Ferrera de Rosa have given accounts of epidemic yellow fever which prevailed in Martinique in 1655. We perceive that these two dates are anterior to that of the arrival of the *Oriflamme*. We cannot, then, repose any confidence in such contradictory facts, which it is impossible to verify, and we should be careful in drawing from them inductions in favor of this or that system.

It remains now to be proven if the Yellow Fever does not visit indiscriminately all parts of the globe. Its existence has never yet been well ascertained but in America, along the coasts of Africa, and of Europe; the islands and the continent of America are its chosen seats. M. Moreau de Jounies has enu-

merated from the latter part of the 15th century down to 1819, two hundred and seventy-five grand irruptions of the Yellow Fever, distributed as follows: Two hundred and twenty-seven in America, four in Africa, and forty-three in Europe.

Since 1819 the period to which the calculations of M. Moreau were limited, many epidemics have been witnessed; the most remarkable in Europe are those of Barcelona and Gibraltar. In 1830 and in 1835, Goree and Saint-Louis, of Senegal, were visited by the Yellow Fever: in the French Antilles, after ten years of interruption this disease appeared anew, with increased violence in 1838 and is still continuing its ravages.

Vera Cruz, New Orleans, and Cuba are each year the theatre of new epidemics, whose variable intensity, according to certain conditions which are by no means appreciable, may however be determined in part by the sum total of Europeans recently arrived,

The Yellow Fever has never been known at the height of twelve or fifteen hundred feet above the level of the sea.

The most elevated northern latitude where it has been observed, is the forty-sixth degree, at Quebec in Canada.

It has on the contrary advanced but very little in southern latitudes; on this point, M. Sericain of Toulon has advanced, in the *Annals Maritimes* the following reflections;

"The Yellow Fever does not appear to be propagated in the southern hemisphere; the equinoctial line seems to oppose to its further progress in this direction, an insurmountable barrier, notwithstanding all the physical phenomena both of the air and soil, suitable to its developement, are concentrated in some measure at Rio Janeiro, (Brazil,) at Aquila, and at Avica, (Peru,) and also in many of the southern latitudes of Africa and Asia.

"Are we justified in attributing the predilection which characterizes the Yellow Fever for North America, to the fact that this region is warmer than that of the South? But Brazil and Peru are infinitely hotter than the United States; besides, they are subject to great alterations of heat and cold, and are very humid.

"Guayaquil, situated several degrees north, upon the east coast of America, is desolated by the Yellow Fever; Panama likewise suffers in this respect; whilst Lima, located 14 degrees to the south—the same latitude as Martinique, to the north, is a very healthy climate, although very flat. Does the course of the winds exercise here an important role?

"Does the elevation of a country influence the progress of the Yellow Fever? No. Avica is a low maritime coast, and what is worse, exposed to the winds from the hills, and an islet covered with such an enormous accumulation of the *debris*, from sea birds, that the air is infected with it to a great distance in the vicinity. Avica is, however, never visited by the disease. Quilia is on the coast and near a river: it is there extremely hot, and there the Yellow Fever never shows itself.

"At Lima, the filthiness of the streets is remarkable: dead dogs, mules and other animals are suffered to lie and putrify within the limits of the city, without ever removing the bones, after the animals of prey have devoured the flesh. Human bodies are not even buried beneath the surface of the earth in the cemetery, which is but a very short distance from the city: the humidity of the atmosphere there is very great and constant. Lastly, we do not feel those brisk winds which renew the purity of the air, by opposing and dissipating all accumulations of miasma, with all their catalogue of physical evils. The Yellow Fever is unknown in that city."

"I am perhaps the first traveller" [says M. Livicair] "who has pointed out that partiality which the Yellow Fever manifests for the northern hemisphere—a remarkable preference especially for the New World."

(TO BE CONTINUED.)

II.—On Large Doses of Sub-nitrate of Bismuth in Gastro-Intestinal Affections. By M. MONNERET.

M. Monneret states that he has been for some years engaged in experimenting upon the medical qualities of this substance, and that he finds, that given in higher doses than are supposed to be permissible, it is of the greatest value in gastro-intestinal affections, especially those attended with fluxes.

Simple Diarrhœa. It is especially in the diarrhœa of infants resulting from imperfect lactation, that he has found it so very useful, large doses curing such in a few days. So, too, after weaning, and the injudicious diet so often adopted, the bismuth, in doses of three teaspoonfuls a day, soon removes all symptoms of disordered digestion, especially the serous diarrhœa so often produced in these cases. Simple diarrhœa is of much rarer occurrence in the adult; still examples are met with in which we cannot attribute it to either phlegmasia or ulceration of the intestines, as in the granular disease of the kidneys, in sclerotic women, in women become anæmic from cancerous degeneration of the uterus, and in some cases of chronic disease of the heart, or in commencing phthisis. Those cases in which the diarrhœa is serous and results from an atonic state of the gastro-intestinal membranes, best yield to this medicine. It should be given in gradually increasing quantities from two drachms to twelve or more per diem.

Diarrhœa symptomatic of Intestinal Lesion. In spite of the presence of symptoms indicative of inflammatory action, the author has frequently administered bismuth to children with great success. So, too, he has found it very useful in some subjects of phthisis suffering from obstinate colliquative diarrhœa, and even in the diarrhœa of typhoid fever, when the intestinal canal was certainly the seat of very numerous ulcerations. In this last case its utility is not very permanent; but it has the advantage of inducing the tolerance of articles of diet or medicine, which without it would be rejected.

Cholérine. The frequency with which gastro-intestinal disturbance precedes true cholera is well known, and the desirability of its suppression is evident; and to this end large doses of bismuth succeed better than any other means. It is most suitable in the cases in which, with the diarrhœa, there are nausea, vomiting, gastralgia, colicky pains, borborygmi, and anorexia. The cases are innumerable in which the author has been enabled rapidly to relieve these symptoms, without any aid from opium, by giving eight or ten drachms per diem. The only inconvenience resulting, is a certain amount of constipation.

Gastralgia. Various observers have already admitted the great utility of this substance, both in idiopathic gastralgia and in the forms dependent upon hysteria, hypochondriasis, chlorosis, &c. &c.; but it has frequently failed in the hands of others, by being given in doses of two or three scruples per diem in place of twelve or fifteen drachms; and it is taken with such ease that the patients voluntarily continue its employment after the pain has ceased, until the gastro-intestinal functions are thoroughly re-established. The idiopathic forms of gastralgia, so often met with in sedentary or literary persons, and in those suffering from depressing emotions or from the abuse of alcohol, or coffee, are those which are most successfully combated. It has often, too, enabled the stomach to bear those tonic aliments, whose slow and painful digestion, accompanied by cephalalgia, drowsiness, and pain in the back and limbs, is so often observed in chloro-anæmic patients. This medicine only produces a temporary relief in gastralgia, dependant upon organic disease of the stomach, except when this viscus secretes a large quantity of acid fluid.

Vomiting. Vomiting may depend upon a simple gastric neurosis, and then the bismuth can be very usefully employed. It is also useful in the vomiting of pregnancy, and that accompanying dysmenorrhœa; but its efficacy is less certain than in affections of the gastro-intestinal tube, and is never so great as

when diarrhœa, colic and flatus are present. From whatever cause pain manifests itself during digestion, we may relieve it by mixing the sub-nitrate freely with the articles of food.

Administration and action. It should be given in powder, and best so, with the first spoonful of broth or gruel. It excites no disgust, especially if placed between two bits of bread soaked in broth. Children take it readily with milk or ptisans. The author has never given less than from two to three drachms per diem, nor more than twenty, and he has never observed the slightest inconvenience from these large doses; and it is his custom to give it to the children in his hospital by spoonfuls or tablespoonfuls, without observing more exactitude, so innocuous is it. So imperfectly is this fact known that the chemists hesitate in preparing his prescriptions in which these large doses are ordered. The author cannot conceive why this substance was ever set down as an irritant poison, as he has never found the slightest irritation from the largest doses given either to the healthy or the sick; and post mortem examination proves that, beyond patches of black discoloration, it produces no effect on the mucous membrane, the consistence of this remaining quite normal. The action of the substance upon the canal seems to be quite negative, that is to say, the abnormal symptoms for which it was prescribed quickly disappear. Great attention has failed, also, to detect any marked effect upon any other part of the system. Perhaps the urine is somewhat increased, and the pulse becomes slower, but this is probably due to the relief of the gastro-intestinal affection. The action of bismuth is, then, purely a *local* one; and this local action, so far from being an irritant one, as so commonly stated, diminishes the activity of the phenomena of which the mucous membrane is the seat. It is not to be supposed, however, that this inert substance can act actively and directly upon the canal, as a soluble body after absorption does; and it is probable that it acts merely as an inert body, just as charcoal might do, mechanically protecting the over-excited secretory organs and papillæ of the nerves from the too immediate contact of the fluids, and especially aliments. By its mechanical apposition, it limits the amount of exhalation. The allegation of its antispasmodic properties has solely risen from observing the diminution of the symptoms, without considering whether this might not arise negatively from the preservation of the gastro-intestinal surface from the causes of irritation. In this way we might call darkness an antispasmodic, because it allows the repose of the retina, and the subdual of the irritation which gives rise to photophobia.—*Gazette Medicale*, Nos. 15, 16.

Of the utility of bismuth in smaller doses in gastric affections we have almost daily proof; but the doses we are in the habit of employing are so very much smaller than those recommended by M. Monneret, that their beneficial action can scarcely be explained upon the mechanical theory he advocates, which is, however, admirably suited to the explanation of the *modus operandi* of the very large doses he employs. As somewhat confirmatory of his view, we may mention that M. Belloc, in a recent communication to the Académie, makes mention of the very great benefit derivable from the employment of charcoal prepared from poplar shoots, in gastro-intestinal affections. It rapidly subdues pain, facilitates digestion, excites the appetite, and enables medicines that the alimentary canal would not otherwise tolerate, to be easily borne.—*See Rev. Med. Chir.* t. v. pp. 75-86.

III.—*On Neuralgia of the Cervix Uteri.* By M. MALGAIGNE.

M. MALGAIGNE believes this to be by no means the rare disease it is generally thought to be. There are, indeed, two forms of neuralgia of the female genital organs—neuralgia of the cervix, and neuralgia of the appendices. Neuralgia of the cervix is often combined with leucorrhoea, or an engorged state of the neck or body of the uterus. Its essential characteristic is the presence of a painful point, generally a solitary one, and almost always seated anteriorly and towards the left. It is very rare for this tender spot to exist without being accompanied by neuralgic pains in the abdomen, loins, epigastrium, &c. These painful irradiations vary, both as it regards their seat and extent, and are very likely to be mistaken for other affections. In several cases mere repose gives great relief; but in obstinate cases the greatest variety of means are sometimes unavailingly tried. M. Malgaigne, calling to mind that in other neuralgia the causes of which he could not discover, he had by their obstinacy been driven in despair to divide the affected nerve, resolved to proceed in an analogous manner in this case, and the incision of the painful point of the cervix was attended with great success. He has now performed the operation several times, and in but two instances has hemorrhage occurred, in both of which the curved scissors had made the incision horizontally. The vertical section has been attended with loss of only a few drops of blood—*Rev. Med. Chir.* iv. 333-40.

IV.—*Case of slow action of the Heart in Fever.*—By CHARLES HALPIN, M. D. Cavan.

In reply to the query in the Circular relative to the Fever Report, respecting the peculiar phenomena of the circulating system, Dr. Mease and myself, in our joint report on the epidemic fever of 1847, stated that we had met with "nine cases in which the heart's action ranged between forty and fifty beats in the minute, yet all those cases terminated favorably" *

Since that report was written I had an opportunity of treating a similar case in the County Fever Hospital: a short history of its course may not be uninteresting.

Ellen G—, aged 18, was admitted into hospital 2d December, 1848. Pulse 96; skin hot, tongue dry, but clean, with considerable thirst; no headache. The fever ran its course mildly, and terminated without appreciable crisis, on the eleventh day. On the 14th of December she relapsed; the skin became hot, and the pulse rose to 84. On the 15th it fell to 70, and continued to decline gradually but steadily until the 18th, although stimulants were given very freely. On the 18th the pulse was 42; 19th, 45; 20th, 46. She took seven and a half ounces of whiskey each twenty-four hours, 21st, felt better, but pulse was 44; 22d, 44; 23d, 40. Ten ounces of spirits were again taken.

Dec. 24th, Pulse 40. Took the same quantity of stimuli; was up and dressed; and with the exception of this extremely slow pulse, was apparently well.

Dec. 25th. Pulse 40. On this day she was ordered the acetated tincture of iron, and small dose of tincture of Spanish flies. Continued the spirits; ten ounces daily.

Dec. 26th. Pulse 42; 27th, 52. Took six ounces of spirits. 28th, 29th and 30th, 80.

After this date all remedies were laid aside, and she was discharged on the 26th of January, the pulse being then 68.

(a) *Dub. Med. Jour.*, No. xiii., N. S. Feb. 1849, p 116.

V. On the Pathology of Convulsions in Children.

(A writer in the British and Foreign Medico-Chirurgical Review, lays down the following propositions respecting the convulsions of children. He says:)

1. The first proposition we may lay down is that of Flourens, Magendie, and Hall, that no disease of the mere cerebrum, or disorder limited in its effects to that organ, or to the purely cerebral nerves, can induce convulsions; for no irritation confined to these parts can bring about muscular contraction. If disease or disorder, or so called irritation, commence in these parts, it must afterwards be propagated to, or its results there must effect the membrane, or the incident or motor nerves, or the medulla oblongata, before convulsions can arise.

2. Convulsions, either partial or general, may occur, and during the fit the child may die; yet after death no *visible* alterations, or organic lesions, or anatomical changes, can be discovered in the nervous centres, with which such convulsions can be rightly and satisfactorily associated as an effect; nor has the child been known to have labored under any affection of other systems or organs, by which the centres may have been more immediately or secondarily affected, or with which they may have *sympathized*; nor have the incident or excitor nerves been known to have been exposed to such irritation, as might have produced the convulsions in the way of reflex actions. It is here then supposed that certain alterations, of a dynamic character, in the nervous matters of the centres, primarily arising there, are the cause of such convulsions, which are therefore of *centric* origin, a cause which is certainly not anatomically definable, but only assumable in its existence.

3. Convulsions, either general or partial, may occur, and the child may die in the fit; but after death, no morbid lesional changes are found to exist in the nervous centres, to which we can ascribe the disorder as an effect. We refuse to acknowledge that the cause of the convulsions had its origin in the nervous matter of the centres, or primarily affected it, because we know the child to have been exposed to irritants of the incident or excitor nerves; and we believe that these convulsions were caused by reflex spinal actions, and that the latter were the result of the irritation so produced. We believe, moreover, that the child labored under no affection of any organ which could alter the proper relations of the vascular system of the brain with the nervous matter, or at least produce such an alteration which proves itself by an abiding and evident change to be witnessed after death. These convulsions are of *excentric* origin; and the only cause of them, down to which we can generalize, is the peculiar irritation to which we believe certain incident or excitor nerves have been subjected.

4. A child dies after having been convulsed. After death, more or less evident and important lesional changes and anatomical alterations are found in or about the nervous centres. These we believe sufficient to account for such convulsions, and we trace them to such morbid changes, &c., as their effect. We also affirm them to be caused by the disease of the centres, because before their appearance there existed a greater or less amount of so-called "cerebral symptoms." We believe these cerebral symptoms, and consequently the disease of the centres, to have been of a *primary* character; that is to say, to have had their commencement either in the nervous or vascular apparatus contained in the cranium or spinal canal, and not to have followed as a secondary disorder upon a more or less acute affection of any other or more distant organ. These convulsions are of *centric* origin.

5. A child dies in convulsions. After death, we may, or we may not, perceive such material changes in the centres as we may affirm to have been their immediate cause. If they exist, so far it is satisfactory; if not, we yet believe that *temporary* alterations were produced, either in the relations of the vascular system of the brain, &c., to its nervous matter, or else in the *sympathetic* relationships between the centres and other systems, organs, or structures of the body, by the previous existence of important disease in organs, &c., other than these centres. This we believe, because we know the child to have exhibited, for a

greater or shorter space of time, other than "cerebral symptoms;" to have distinctly betrayed the existence of more or less acute disorder of distant parts. We therefore believe that such convulsions, or the disorder in the centres were not of *primary* character, not the result of disease having its primal origin in the centre themselves; but that they were of a *secondary* character, a well marked and evident disorder of a distant part having at length drawn the brain—not at first disposed in itself to enter—into the general whirlpool of mischief. Such convulsions are yet of *centric* origin.

We believe that the above arrangement can be made to include all forms of convulsions spoken of by writers as occurring in children. But we must admit that it is very doubtful how far we may be permitted, as knowledge advances, to preserve all its various divisions. For example, it may be asked if we are *now* justified in making such a class of convulsive actions as we should include in the characters on proposition 2,—a class having only *assumable* endowments. Are we warranted in believing that, in infants and children, such purely and essentially *neurose* disorder can arise, or that the nervous matter of the centres can assume in itself any such diseased condition?—a condition independent of alteration or changes in its vascular system. It has been affirmed by some later continental writers that before the period of the first dentition, *essential* convulsions, such primitive *neurose* disorder as we have admitted, are things next to an impossibility; and Mauthner asserts, even later in life it forms the exception to a great rule, when we are called upon to believe in their existence. According to Verson, "before an organ or system—causes of disease being present—can exhibit the development of a pure and special form of malady, proper to and proceeding from itself, it must be endowed with all those qualities which make it capable of the conflict; it must possess a completely developed organization, and through the latter be in a condition to react against those influences which are affecting it. Do we find this to be the case with the *sensitive* sphere of life in the infant? By no means. In it predominates the *vegetative*, and that portion of the nervous system alone which is necessary for the carrying of its functions. The ganglionic system is, therefore, developed relatively to such necessities.

The comparatively more perfect development of the spinal cord in children, with which the ganglionic system is in such intimate connexion, in relation to that of the brain, is one of the main reasons advanced by some later writers to account partly at least for the very great frequency of convulsion during infantile life. Dr. West remarks.

"The grand reason of their frequency is no doubt to be found in the *predominance of the spinal over the cerebral system in early life*. In the adult, the controlling power of the brain checks the display of those reflux movements, which become at once evident if disease heighten the excitability of the spinal cord, or cut off the influence of the brain from the paralysed limb, or if even sleep suspend that influence for a season.

Brit. and For. Med. Chir. Rev., April, 1849, p. 416.

VI. Of the actions of Medicines on the Secreting and Excreting Organs—By Dr. A. B. GARROD.

The function of the excreting organs is to remove from the system matters produced during the metamorphoses of the tissues and food, and which are no longer of any service in the animal economy. Now we know that during life changes of an oxidizing character are constantly taking place, the ultimate

effects of which are much the same as if the tissues had undergone ordinary combustion, which, however, is not of a perfect character, for the carbon and hydrogen are not entirely converted into carbonic acid and water; these elements partly assuming the form of less oxidized compounds; and again, the nitrogen, although it is mostly thrown out as urea, (hydrated carbonate of ammonia,) yet it is also eliminated as uric and hippuric acids, kreatine and kreatinine, etc. These various products of decomposition are removed from the system by different channels, some of the excreting organs separating chiefly the nitrogenized, others the carbonaceous compounds, etc. In health there are removed,—

By the lungs,	{ Carbonic acid. Water.	
By the skin,	{ Water. Carbonic acid, (a little.) Nitrogenized matters containing urea. Water. Urea. Uric acid.	
By the kidneys,	{ Hippuric acid. Kreatine and kreatinine. Colouring matters, etc. Fixed salts. Real bile afterward (reabsorbed.)	
By the liver & intestines.	{ Bile Pigment. Cholesterine, etc. Indigestible matter, peculiar secretion from intestinal canal, &c.	{ Fæces.

We have already seen that the perfect performance of the functions of these various excreting organs is of the greatest importance, and that many diseased states of the system may arise from their defective action; thus, if the kidneys become injured, and urea, &c., accumulate in the blood, then dropsical effusions, affection of the brain, &c., may arise.

Again, if the action of the liver is stopped, the bile pigment, not being thrown out, accumulates, and seeks other means for its discharge, giving rise to the yellow skin, dark-coloured urine, etc., symptoms known by the term jaundice. If the lungs are unable, from any cause, to perform their function, apnoea takes place, from the inability to obtain oxygen, but partly, also, from the retention of carbonic acid in the blood, and so on with the other excretions. Many remedies which we are in the habit of administering are found in these various excretions, having first been absorbed from the stomach into the blood; in some instances, these agents pass out in the state they were administered; in other cases, they become altered by the action of the blood, and are eliminated in a modified form. Many of the substances which have been found in the urine, &c., have escaped detection in the blood; no doubt this has arisen partly on account of the difficulty in detecting substances in this fluid, and partly, also, from the extreme facility with which they are removed by the excreting organs. Certain bodies, however, have been discovered in this fluid, amongst which I may mention, iodine, mercury, baryta, cyanide and sulphocyanide of potassium, hydrochlorates of ammonia, indigo, rhubarb, musk, camphor, etc.; several substances have also been found deposited in the solids, as mercury and madder in the bones, silver in the skin, copper in the liver, lead in the brain, spinal cord, and muscles. The kidneys appear very active in removing from the blood matters which are abnormal to its constitution; and the substances which, after their administration, have been detected in the urine, are very numerous, as they have been more sought for in this fluid than in any other action.

Some substances are found in the urine in an altered state, and the nature of

the changes which they undergo is exceedingly interesting. For example; the salts of the vegetable acids, as the alkaline tartrates, lactates, carbonates of the bases. This change is effected by the oxidizing action of the system, and during their metamorphosis they probably produce some change in the respiratory process; hence, also, the influence which even acid fruits, as oranges, lemons, etc., possess in causing an alkaline condition of the urine, the acids being decomposed into carbonic acid and water, and the carbonates only escaping through the kidneys. Certain other acids undergo a different kind of metamorphosis—for example, benzoic and cinnamic acids: these are not broken up into carbonic acid and water, but, by uniting with other matters found in the blood, are capable of forming an acid which is a normal constituent of the urinary excretion. When benzoic acid is taken into the stomach, and the urine passed during the next five or six hours collected, it is found to contain, not benzoic acid, but in its place hippuric acid. The amount of hippuric acid exceeds that of the benzoic acid administered. Mr. Ure, who first observed this change in the human subject, thought that the benzoic acid in its passage destroyed the uric acid, and by assuming its elements, became converted into hippuric acid; but, when repeating the experiment, found this to be an error, for the amount of the uric acid in the urine remained the same before and after its administration.

By use of these bodies as remedies we produce a very acid condition of urine, enabling this fluid to hold in solution a large amount of phosphatic salts; and hence, in some cases where these are deposited, it proves a useful therapeutic agent. A case illustrating this occurred recently under my care in University College Hospital. A woman suffering from slight paraplegia was voiding urine, alkaline in reaction, and which deposited so large an amount of phosphates, as frequently to occupy half the height of the fluid in the glass. The administration of the usual remedies, as nitric acid, Pareira brava, etc., did not produce any effect on this condition of the urine; but when benzoic acid was given in large doses, (two scruples four times a day,) the phosphatic deposits soon became lessened, and in a few days entirely ceased; the urine also at the same time became acid when voided, and did not very readily undergo decomposition. When the remedy was discontinued the abnormal condition of the urine did not return. In such cases it is probable that the benzoic acid not only imparts to the urine the power of holding the phosphates in solution, but acts also by stimulating the mucous membrane of the urinary passages, and correcting the secretion of an abnormal mucus, which often serves as a ferment, and causes the decomposition of the urea into carbonate of ammonia.—*Lancet*, Dec. 30, 1849, p. 709.

VII. *On the action of Cells in Secretion.*

Thus, in secretion, one cell selects its peculiar principles, and becomes filled with bile.—another with saliva; but, the active agent being in every instance a simple cell, it is no wonder that changes in the common liquid, within and without the cell, should affect the cellular endosmose, and that secretions should become, to a certain extent, vicarious; that the elements of bile, for example, should be separated by the cells of the kidney, and of the urine by those of the skin. Still more important is the recent discovery of one of the most peculiar products of one excretion, urea, even in the healthy fluids of the body,—as in the aqueous humor of the eye; and of both urea and uric acids even in the blood itself, without the intervention of any secreting organ: a circumstance so improbable in the

history of secretion, that although, as Dr. Prout informs us, urea was thus seen by him in 1816, he could not believe the fact till it had been established many years afterwards by Dr. Christison and other observers.—*Hawkin's Hunterian Oration*.—*Medical Gazette*, April 6, 1849, p. 556.

VIII. *Use of Glycerine in Deafness*.—By DR. TURNBULL.

Some time ago, Mr. Yearsley published an account of deafness arising from deficiency of the membrana tympani, being relieved by the introduction of a bit of moistened cotton wool into the orifice. Dr. Turnbull suggests that the cotton wool should be moistened with glycerine; when moistened only with water, he says that it required to be renewed daily.

This great inconvenience I have found is much done away with by the wool being moistened with glycerine alone, or diluted with water. The glycerine possesses the peculiar property of attracting moisture from the air, and keeping the wool moist for a length of time, rendering it unnecessary to have it frequently changed.

Another method that I have practised in cases of fracture or perforated tympanum for the last ten years, and I think with great benefit, is by dropping ten drops of glycerine into the ear, or a solution of glycerine and water of equal quantities, causing the patients to lay their heads down on the contrary side for the space of about five minutes; and two or three times in this position, causing the patient to make a forcible pressure of air against the cheek, at the same time compressing the nose with the fingers. The air will then be forced out of the ear through the eustachian tube, and all that is required in general is to repeat this as often as the deafness shall return. I have had some cases that did not require a second application for several months. One case was a barrister from Edinburgh, who consulted me in 1839, and who previously was enabled to carry on his profession as a barrister by filling a small quill with saliva, and when he became deaf, pressing it gently into the meatus, leaving the fluid. By this means he established a tolerable state of hearing. Other cases, previous to my becoming acquainted with the utility of glycerine, were benefited by warm oil of almonds instead of glycerine.

I would desire to add, that in all cases of deafness, hearing will be generally obtainable to a considerable extent, when the patient is capable of hearing distinctly a watch when pressed upon the temporal bones. The application of glycerine, I have confined to cases of fractured tympanum, but it will be found a most valuable medicine for the protection of the membrana tympani, etc., from the air, in almost all cases where there is a deficiency of ceruminous discharge. *Medical Gazette*, June 1, 1849, p. 962. —*Med. Review*

IX.—*On the Employment of Collodion in Ophthalmic Affections*.—By M. HAIRION.

To be enabled to protect the inflamed cornea from the contact with the air, prevent the movement of the eye-lids over its surface, and retain topical applications long in contact with it, are objects which, if realized, would much diminish the severity of keratitis and conjunctivitis. Attempts at accomplishing

these ends by the use of court plaster and the like has failed in the author's hands, when collodion offered itself to his notice. He usually applies it to the eyelids of one eye, and afterwards, if both eyes are diseased, to the other; but circumstances may render its simultaneous use necessary. The adhesion never lasts longer than forty-eight hours, frequently not so long, and has to be reaccomplished. The discharges from the eye usually work out a small passage, or a little space may be left at the angle of the eye, without interfering with immobility. This often forms an admirable means either of securing rest and darkness for the inflamed conjunctiva or cornea, or of enabling us to make effectual application of various ointments to the ocular surface. Then again, in the various perverted conditions of the eyelids, as in trichiasis, distichiasis, entropion, ectropion, &c., the ease with which, by collodion, the desired rectification can be secured, renders it a most valuable palliative and even curative agent—*L'Union Medicale*, Nos. 29, 31.—*Medical Review*.

Part Fourth.

AMERICAN MEDICAL INTELLIGENCE.

I.—*Observations on the size of the Brain in various races and families of Man.* By SAMUEL GEORGE MORTON, M. D.

[From the Proceedings of the Academy of Natural Sciences, October, 1849.]

I have great pleasure in submitting to the Academy the results of the internal measurements of six hundred and twenty-three human crania, made with a view to ascertain the relative size of the brain in various races and families of man.

These measurements have been made by the process invented by my friend, Mr. J. S. Phillips, and described in my *Crania Americana*, p. 253, merely substituting leaden shot, one-eighth of an inch in diameter, in place of the white mustard seed originally used. I thus obtain the *absolute capacity of the cranium, or bulk of the brain, in cubic inches*; and the results are annexed in all those instances in which I have had leisure to put this revised mode of measurement in practice. I have restricted it, at least for the purpose of my inferential conclusions, to the crania of persons of sixteen years of age and upwards, at which period the brain is believed to possess the adult size. Under this age, the capacity-measurement has only been resorted to for the purpose of collateral comparison; nor can I avoid expressing my satisfaction at the singular accuracy of this method, since a skull of an hundred cubic inches, if measured any number of times with reasonable care, will not vary a single cubic inch.

All these measurements have been made with my own hands. I at one time employed a person to assist me; but having detected some errors in his measurements, I have been at the pains to revise all that part of the series that had not been previously measured by myself. I can now, therefore, vouch for the accuracy of these multitudinous data, which I cannot but regard as a novel and important contribution to Ethnological science.

I am now engaged in a memoir which will embrace in detail the conclusions that result from these data; and meanwhile I submit the following tabular view of the prominent facts.

TABLE,

Showing the size of the Brain in cubic inches, as obtained from the internal measurement of 623 Crania of various Races and Families of Man.

RACES AND FAMILIES.		No. of Skulls.	Larg'st I. C.	Small- est I.C.	Mean.	Mean.
MODERN CAUCASIAN GROUP.						
TEUTONIC FAMILY.						
	Germans,.....	18	114	70	90	} 92
	English,	5	105	91	96	
	Anglo Americans,	7	97	82	90	
PELASGIC FAMILY,						
	Persians,	} 10	94	75	84	
	Armenians,					
	Circassians,					
CELTIC FAMILY.						
	Native Irish,	6	97	78	87	
INDOSTANIC FAMILY.						
	Bengalees, etc.....	32	91	67	80	
SEMITIC FAMILY.						
	Arabs,	3	98	84	89	
NILOTIC FAMILY.						
	Fellahs,	17	96	66	80	
ANCIENT CAUCASIAN GROUP						
From the Catacombs.	PELASGIC FAMILY.					
	Græco-Egyptians,.....	18	97	74	88	
	NILOTIC FAMILY.					
	Egyptians.	55	96	68	80	
MONGOLIAN GROUP.						
	CHINESE FAMILY.....	6	91	70	82	
MALAY GROUP.						
	MALAYAN FAMILY.....	20	97	68	86	} 85
	POLYNESIAN FAMILY.	3	84	82	83	
AMERICAN GROUP.						
TOLTECAN FAMILY.						
	Peruvians,.....	155	101	58	75	} 79
	Mexicans,	22	92	67	79	
BARBAROUS TRIBES.						
	Iroquois,.....	} 161	104	70	84	}
	Ienapé,					
	Cherokee,					
	Shoshoné, etc.....					
NEGRO GROUP.						
	NATIVE AFRICAN FAMILY...	62	99	65	83	} 83
	AMERICAN-BORN NEGROES...	12	89	73	82	
	HOTTENTOT FAMILY.....	3	83	68	75	
	ALFORIAN FAMILY.					
	Australians,.....	8	83	63	75	

The measurements of children, idiots and mixed races are omitted from this table, excepting only in the instance of the Fellah of Egypt, who, however, are a blended stock of two *Caucasian* nations,—the true Egyptian and the intrusive Arab, in which the characteristics of the former greatly predominate.

No mean has been taken of the Caucasian race* collectively, because of the very great preponderance of Hindu, Egyptian and Fellah skulls over those of the Germanic, Pelagic and Celtic families. Nor could any just *collective* comparison be instituted between the Caucasian and Negro groups in such a table, unless the small-brained people of the latter division (Hottentots, Bushmen and Australians,) were proportionate in number to the Hindoos, Egyptians and Fallahs of the other group. Such a computation, were it practicable, would probably reduce the Caucasian average to about 87 cubic inches, and the Negro to 78 at most, perhaps even to 75, and thus confirmatively establish the difference of at least nine cubic inches between the mean of the two races.

Large as this collection already is, a glance at the table will show that it is very deficient in some divisions of the human family. For example, it contains no crania of the Eskimaux, Fuegians, Californians or Brazilians. The skulls of the great divisions of the Caucasian and Mongolian races are also too few for satisfactory comparison, and the Slavonic and Tchudic (Finnish) nations, together with the Mongol tribes of Northern Asia and China, are among the especial *desiderata* of this collection.

Among the facts elicited by this investigation are the following :

1. The Teutonic or German race, embracing, as it does, the Anglo-Saxons, Anglo-Americans, Anglo-Irish, &c., possesses the largest brain of any other people.
2. The nations having the smallest heads, are the ancient Peruvians and Australians.

* It is necessary to explain what is here meant by the word *race*. Further researches into Ethnographic affinities will probably demonstrate that what are now termed the *five races* of men, would be more appropriately called *groups*; that each of these groups is again divisible into a greater or smaller number of primary races, each of which has expanded from an aboriginal nucleus or centre. Thus I conceive that there were several centres for the American group of races, of which the highest in the scale are the Toltec nations, the lowest the Fuegians. Nor does this view conflict with the general principle, that all these nations and tribes have had, as I have elsewhere expressed it, a common origin; inasmuch as by this term is only meant an indigenous relation to the country they inhabit, and that collective identity of physical traits, mental and moral endowments, language, &c., which characterize all the American races. The same remarks are applicable to all the other human races; but in the present infant state of Ethnographic science, the designation of these primitive centres is a task of equal delicacy and difficulty. I may here observe, that whenever I have ventured an opinion on this question, it has been in favor of the doctrine of primeval diversities among men—an original adaptation of the several races to those varied circumstances of climate and locality, which, while congenial to the one, are destructive to the other; and subsequent investigations have confirmed me in these views. See *Crania Americana*, p. 3; *Crania Egyptica*, p. 37; *Distinctive Characteristics of the Aboriginal Race of America*, p. 36; *Silliman's American Journal of Science and the Arts*, 1847; and my Letter to J. R. Bartlett, Esq., in Vol. 2 of the *Transactions of the Ethnological Society of New York*.

3. The Barbarous tribes of America possess a much larger brain than the demi-civilized Peruvians or Mexicans.

4. The ancient Egyptians, whose civilization ante-dates that of all other people, and whose country has been justly called "the cradle of the arts and sciences," have the least-sized brain of any Caucasian nation, excepting the Hindoos; for the very few Semitic heads will hardly permit them to be admitted into the comparison.

5. The Negro brain is nine cubic inches less than the Teutonic, and three cubic inches larger than the ancient Egyptian.

6. The largest brain in the series is that of a Dutch gentleman, and gives 114 cubic inches; the smallest head is an old Peruvian, of 58 cubic inches; and the difference between these two extremes is no less than 60 cubic inches.

7. The brain of the Australian and Hottentot falls far below the Negro, and measures precisely the same as the ancient Peruvian.

8. This extended series of measurements fully confirms the fact stated by me in the *Crania Americana*, that the various artificial modes of distorting the cranium occasion no diminution of its internal capacity, and consequently do not affect the size of the brain.



II.—*The Drug Law and the honorable T. O EDWARDS, M. D.*

Our readers can not have forgotten the successful efforts made by the honorable T. O. Edwards, in procuring the passage of a law, while in the the Congress of the last session, to prohibit the introduction into this country, of adulterated drugs and medicines. The beneficial influence of that law has been admitted all over the country, and we can now prescribe medicine with every assurance of success. Through a *circular* just received, we are pleased to learn that Dr. Edwards has established a *wholesale and retail drug and chemical store* in Cincinnati, Ohio, in partnership with C. Allen Brown of Boston. Physicians and Druggists who may wish to procure genuine drugs and medicines, free from adulteration, can remit their orders, with every confidence of obtaining the fresh and genuine article to T. O. Edwards, Cincinnati, Oo. Dr. Edwards is entitled to liberal patronage of the medical public, and all others interested in the dispensation of unadulterated medicines.



III.—*Liberality in the Medical Profession.*

An instance of a noble act in the profession has just reached us, and we take much pleasure in making it known to its members. The mag-

animity of the deed is greatly enhanced by the worthiness and great merit of him who happened to call it forth. It teaches the world, that the medical profession not only devotes much of its time and talents to the relief of the poor and afflicted ; but, can otherwise, on proper occasion, aid and assist a brother practitioner, on whom poverty and misfortune may lay their heavy hands. The *Medical Faculty of the Georgia Medical College*, with true liberality, recently made a donation of \$500 to Dr. C——, formerly a professor in the above school, but who is now advanced in years, reduced in his circumstances, feeble in health, and burdened with the support of a large family. Such deeds are calculated to inspire feelings of pride in our profession, and elevate the science of medicine, among every liberal and civilized community. All honor, then, to the Faculty of the Georgia Medical College, who have thus made science an instrument of charity, and placed before us an example worthy of emulation. We rejoice to learn that the school has a large class this session, and is highly prosperous.



The Georgia Medical and Surgical Journal.

The December number of this periodical announces the retirement of Prof. P. F. Eve, from the editorial charge of this Journal. We feel confident that the entire *corps editorial* will unite with us in expressing our regret at this event, and the more so, since we learn that domestic affliction has induced Prof. Eve to take this step. As an editor, he was able, impartial and courteous, and carries with him the good wishes of the profession for his future happiness. Hereafter Prof. Eve will confine his professional duties to Surgery.

STATE MEDICAL CONVENTION.

NEW ORLEANS, March 20th, 1849.

AGREEABLY to previous notice, the Medical Convention of the resident licensed Physicians of the State of Louisiana, met in the hall of the Medical College of this place, at twelve o'clock, m., when on motion of Dr. Peirnas, of New Orleans, Professor Jones was called to the chair, and on motion of Dr. Thos. Hunt, Dr. S. W. Dalton was appointed Secretary.

The Convention being organized, Dr. Hunt rose and with great force and pertinency, urged the postponement of the Convention until December next; and concluded by offering the following resolutions, viz:

Resolved, That a Medical Convention of all the resident licensed physicians of the State of Louisiana, be invited to assemble in the Hall of the Medical College of the State, on the first Monday in December, 1849.

Resolved, That the President and Secretary of this meeting, be authorized to give due notice of the adjourned meeting of the Convention, in the Medical Journal of this place, and newspapers of the State.—Which, on motion, were unanimously adopted.

Approved, December 2d, 1849, JAMES JONES, Chairman.
S. W. Dalton, M. D., Secretary.

STATE MEDICAL CONVENTION.

NEW ORLEANS, Dec. 3d, 1849.

The adjourned meeting of the State Medical Convention took place on this day, and was organized by Professor Jones taking the chair, Dr. Dalton acting as Recording Secretary. The minutes of the proceedings of March 20th were read and approved.

Dr. Simonds, of New Orleans, moved that the Convention proceed to resolve itself into a State Medical Society, which was voted affirmatively, and that a committee be appointed by the Chair to report and devise a plan for the organization of the State Medical Society. The chair appointed the following gentlemen on said committee: Dr. Simonds, Dr. Axson, and Dr. Hale.

On motion of Dr. Hunt, of New Orleans, it was resolved, that the members of the Convention, now present, enroll their names, in order to know to what extent the parishes of the State are represented.

The committee on organization reported on the expediency of at once constituting a State Medical Society, to be known as the Louisiana State Medical Society. It farther urged the propriety of recognizing as the sole qualification for membership, such requirements as are recognized by the laws of the State to entitle a physician to practice, viz: a license obtained from either of the Boards of Medical Examiners, or a diploma from the duly constituted Medical School of the State. It farther suggested, as preliminary steps to a perfect organization, that a President and Recording Secretary be elected by ballot.

When, on motion of Dr. Henderson, it was resolved, that the Society proceed to elect said officers. The same gentleman nominated Dr. Hale, of Alexandria, for President. Dr. Bein nominated Dr. Axson for Re-

cording Secretary, and moved they both be voted for at the same time. Adopted.

The ballot showed the choice of these gentlemen for the respective offices.

Dr. Hale, on taking the chair, expressed his grateful acknowledgments for the unexpected and unsolicited honor conferred upon him.

A motion was then made by Dr. Barton, that a committee of five members be appointed to draft a Constitution and By-Laws for the regulation of the Society—Adopted.

Under this resolution, the Chair appointed Dr. Simonds, Dr. Barton, Dr. Penniston, Dr. Fenner, Dr. Mather.

The Committee not being prepared to report, on motion, the Society adjourned until Dec. 4th, 12 m.

LOUISIANA STATE MEDICAL SOCIETY,

NEW ORLEANS, Dec. 4th, 1849.

An adjourned meeting of the Louisiana State Medical Society met at 12, M. Dr. Hale, President, in the chair, Dr. Axson, Secretary. The minutes were read and approved. Dr. Fenner read a letter from Dr. Hogan, of De Soto Parish, stating that he had been appointed to represent the physicians of that Parish in the Convention, but in consequence of sickness in his family he was unable to do so. He requested the names of the physicians of the Parish of de Soto, a list of which he sent, to be registered on the roll of the Convention. The question was mooted as to the propriety of doing so until satisfied of their eligibility, according to the constitution, upon which Dr. Fenner offered the following resolution:

Resolved, That Dr. Fenner be authorized to enroll, as members of this society, the names of the physicians of the Parish of De Soto, who are duly licensed to practice in this State. Adopted.

The committee appointed for the purpose of drafting a constitution, submitted a code, each article of which was voted upon separately. After a lengthened discussion as to the necessity of an additional article, specifying the number requisite to form a quorum, without arriving at any conclusion, Dr. Dalton moved the adoption of the constitution as offered by the committee. Carried. Dr. Simonds offered a resolution to the effect, that the term of the present officers should expire on the 3d Monday in January next, or as soon thereafter as other officers shall be elected. A discussion arose out of it as to whether the Society should meet in January next, or twelve months from that time. Dr. Henderson asked if they had not the right to put off the meeting for one, two, or any number of years. Dr. Simonds motion was then put and lost.

A motion was then made to go into an election for the remaining officers of the society, as provided by the Constitution, consisting of two Vice Presidents, a Corresponding Secretary, and a Treasurer—carried. Dr. Axson stated that circumstances prevented him from serving any longer as Recording Secretary, and, therefore, tendered his resignation—accepted. A motion was then made to go into an election of the

various officers, *viva voce*; which was negatived as unconstitutional. While the members were preparing their tickets, Dr. Barton presented the society with some of his investigations on meteorology. The election resulted in the choice of Drs. Barton and Simonds as Vice Presidents, Dr. Fenner as Corresponding Secretary, Dr. Hare as Treasurer, and Dr. Mather as Recording Secretary.

On motion, the society adjourned to meet the following day, (Dec. 5th,) at 10 A. M.

LOUISIANA STATE MEDICAL SOCIETY,

NEW ORLEANS, Dec. 5th, 1849.

An adjourned meeting of the Louisiana State Medical Society was convened in the Hall of the Medical College, at 10 A. M. Dr. Hale, the President, in the chair, and Dr. Mather, Secretary. The minutes were then read and approved.

Dr. Jones inquired if any steps had been taken for the incorporation of this body, by act of Legislature. Dr. Barton proposed that committees should be appointed for the purpose of reporting at each annual meeting, on the different branches of medical science; a discussion ensued; Dr. Fenner offered an amendment, but withdrew it. Dr. Simonds proposed that the Board of Administration should compose the committee to collect information incident to the various branches. After various arguments, Dr. Barton's proposition was adopted. They are as follow:

Resolved, 1st. That the following shall compose the **STANDING COMMITTEES** of this Society;

2d. That the chair appoint the chairman of each of these committees;

3d. That the chairman of these committees shall select their own associates, who shall not exceed five.

The Chair made the following appointments, to wit:

1st. Practical Medicine, Dr. Jones.

2d. Diseases peculiar to Negroes, Dr. Cartwright.

3d. On the indigenous Botany of the State and Mat. Medica, generally, Dr. Riddell.

4th. On general and special Hygiene of the State, its vital statistics and Meteorology, Dr. Barton.

5th. On the sale of drugs and quack medicines and adulteration of medicines—Dr. Nott.

5th. On Medical education and the license law—Dr. Hort.

7th. On physiology and pathology.—Dr. Dowler.

8th. On midwifery and diseases of children.—Dr. Cenats.

Dr. Jones arose, and urged the necessity of obtaining a charter from the next legislature; without it, they could not extend legitimate and effective protection to its members against the invasion of quacks and charlatans, which the circumstances called for; it could not occupy that permanent and respectable position in the eye of the public which was necessary to further this object, he therefore offered the following resolution:

Resolved, that the Board of Administration of this society be instructed to obtain an act of incorporation therefor, at the next session of the legislature, and to introduce therein such powers and privileges as to them may appear necessary. Carried.

After which, he suggested the propriety of establishing a beneficiary fund, and adopting some means to secure to physicians a proper remuneration for their attendance in courts of justice as medical witnesses, the importance of which has not been heretofore properly appreciated, and to further which objects, also, he offered the following resolutions:

Resolved, 1st, That a committee of three members of this association be appointed to obtain information of the Medical Board of Examiners of this District, concerning the total amount of fees for medical licenses paid into the treasury of the Charity Hospital, and that the Legislature be petitioned to grant an equal amount to this body for the fund, for the relief of disabled and needy practitioners of medicine and of their families.

Resolved, further, That it be likewise sought in this petition, to obtain the use of such fees and of all others, accruing from medical testimony in courts of justice for the same object. Carried.

The chair appointed on the committee, Drs. Jones, Cenas and Barton.

Dr. Barton then offered the following:

Resolved, That the Board of Administration petition the Legislature, as the sense of this society, that they should pass the necessary law to authorize to be taken throughout the State, annually, an accurate record of the births, deaths, and marriages. Carried.

Dr. Fenner then offered the following:

Resolved, That this society be represented at the next meeting of the American Medical Association by any of its members who may find it convenient to attend, and that the Board of Administration be authorized to give commissions for that purpose. Carried.

Dr. Jones urged the propriety of admitting duly licensed apothecaries into this society, and urged it very forcibly upon the ground of its tendency to do away with a crying evil, which now exists to an unlimited extent; viz.: the adulteration of drugs, by inspiring them with a proper degree of professional pride. Such a course had been adopted by the most prominent medical corporations throughout the world, and had been followed by good results; he proposed an amendment of the constitution in this regard, and that it should be introduced with the original draft of the constitution, and not stand as an amendment. Approved.

Dr. Barton offered the following resolution:

Resolved, That the President shall deliver an annual address, to embrace the condition of Medicine in the State, with such recommendations for its advancement as he may deem appropriate. Carried.

Dr. Jones then inquired, if provision had been made in the constitution for honorary members. Dr. Simonds replied in the negative; that it was not customary in State corporation; that the gentleman could meet the difficulty by introducing a resolution, providing for their admission, or its introduction into the by-laws, and then offered the following:

Resolved, That the Board of Administration be requested to report at

the next meeting, a system of by-laws, and also, such additions to the constitution, as they may deem necessary. Carried.

Dr. Fenner offered the following :

Resolved, That the Secretary be instructed to draw up a report of the proceedings of this convention, and have it published in the next number of the New Orleans Medical and Surgical Journal, and that 200 extra copies be obtained for the use of the society. Carried.

Dr. Dalton urged the necessity of taking steps to secure the action and co-operation of the different Parishes throughout the State; with which view, he submitted the following resolutions :

Resolved, 1st, That the Louisiana State Medical Society do earnestly recommend the immediate formation of auxilliary Parish associations or societies of resident, licensed physicians throughout the State; and when thus formed, that they be requested to report especially the same to the State society in this place, with the officers and members belonging to each.

2d, That the several auxilliary societies be requested to appoint committees upon the improvement of medical science; and that said committees report their labors to this society, at its next annual meeting in this city.

3d, That the corresponding Secretary of this Society, enclose a copy of the foregoing resolutions to some suitable physician or physicians or medical societies, if there be such, in each Parish in the State; that he be empowered to open such correspondence with said physicians or societies, as in his opinion may accomplish the object of the above resolutions. Carried.

Dr. Dalton still further urged the importance of appointing a committee, to examine the various modes of treating yellow fever, and reporting at the next meeting, on the respective merits of each; a spirited discussion ensued, after which, on the question being called for, he offered the following resolution :

Resolved, That a committee of be appointed by the chair to examine and report at the next annual meeting of this society, upon the different methods of treating yellow fever in New Orleans. Lost.

No further business being before the society; on motion, they adjourned to the next annual meeting, on the 3d Monday in January, 1851.

JOSIAH HALE, M. D., President.

F. W. MATHER, M. D., Secretary.

CONSTITUTION

OF THE

LOUISIANA STATE MEDICAL SOCIETY.

Adopted, December 4th, 1849.

Article 1st.—Title of the Society.

The name and style of this Society shall be the Louisiana State Medical Society.

Article 2d.—Objects of the Society.

The objects of this Society shall be the advancement of medical knowledge; the elevation of professional character; the protection of the interests of its members; the extension of the bounds of medical science, and the promotion of all measures adapted to relieve suffering humanity, and to protect the lives and improve the health of the community.

Article 3d.—Members of the Society.

The Society shall consist of every person now present as a member of the State Medical Convention, together with such other duly licensed physicians of this State, as may be hereafter elected.

Article 4th.—Of the Officers.

1st. The officers of the Society shall be a President, two vice Presidents, a corresponding and a recording Secretary, and a Treasurer.

2d. Each officer shall be elected by ballot, on a general ticket, and shall serve for one year, or until another be elected to succeed him.

Article 5th.—Duties of Officers.

1st. The President shall preside at the meetings, preserve order, and perform such other duties as custom and parliamentary usage may require.

2d. The vice Presidents, when called upon, shall assist the President in the performance of his duties, and during the absence, or, at the request of the President, one of them shall officiate in his place.

3d. The corresponding Secretary shall conduct the correspondence, and perform such other duties as usually appertain to that office.

4th. The recording Secretary shall keep correct minutes of the proceedings, and when approved, shall fairly transcribe them into a book kept for that purpose. He shall have charge of all papers belonging to the Society, other than those appertaining to the Treasurer and corresponding Secretary, and give due notice of the annual meeting.

5th. The Treasurer shall receive all monies belonging to the Society, and disburse them as directed, procuring vouchers for the same. He shall annually present a statement of the finances of the Society, which shall be referred to a committee, to be audited.

Article 6th.

The officers shall together constitute a Board of Administration for the Society.

Article 7th.

The duties of the Board of Administration shall be, to take all necessary measures for the welfare of the Society, and to extend its benefits throughout the State.

Article 8th.

The Board of Administration shall meet as often as the affairs of the Society shall require.

Article 9th.

At each regular meeting, the Board of Administration shall make a report of all it shall have done, or ordered to be done, since the preceding meeting of the Society.

Article 10th.

Three shall form a quorum of the Board of Administration.

Article 11th.

The Society shall hold an annual meeting, in New Orleans, on the third Monday in January, in each year.

Article 12th.

Means for defraying the expenses of meetings and current expenses of the Society, may be raised by an annual assessment on its members, of not more than ten dollars each.

Article 13th.

This Society adopts, as a part of its regulations, the code of Ethics of the American Medical Association.

Article 14th.

No alteration or amendment of this constitution shall be made, unless it receives the vote of two thirds of the members present.

Article 15th.—Admission of Apothecaries.

All duly licensed Apothecaries and Druggists may be proposed for admission, as members of the Louisiana Medical Society.

List of the names of the members of the State Medical Convention of Louisiana.

James Jones, New Orleans,	John T. Alexander, Attakapas, M.S.
Samuel A. Cartwright, "	W. B. Lindsey, New Orleans,
Thomas Hunt, "	W. W. Williams, "
G. A. Nott, "	J. W. Folwell, "
R. Bein, "	John T. Lowe, "
E. H. Barton, "	William Hare, "
E. D. Fenner, "	Howard Smith, "
P. B. McKelvey, "	James A. Bradbury, "
C. W. Porter, "	A. C. Hensley, "
M. R. Leslie, Jackson,	J. B. Richey, "
B. Stille, New Orleans,	B. H. Moss, "
Lemuel Gustine, "	G. S. Browning, "
Josiah Hale, Alexandria,	Thomas W. Compton, "
A. F. Axson, New Orleans,	D. S. Ball, "
J. C. Simonds, "	Stephen F. Bardash, "
E. R. Brownell, "	John Farrell, "
C. L. Ulhorn, "	C. R. Mott, "
J. C. Hamilton, "	S. W. Dalton, "
J. B. Henderson, "	W. Stone, "
F. W. Mather, "	S. W. Logan, St. Charles,
F. O. Tompkins, "	B. Dowler, New Orleans,
John B. Vandergriff, "	John J. Ker, "
G. Ridgely, "	J. W. Pictou, "
Thomas Penniston, "	J. S. Copes. "

THE MEDICAL AND SURGICAL JOURNAL.

VOL. VI.] NEW ORLEANS, JANUARY 1, 1850. [NO. 4

Health of the City, &c.—When our *January* number for 1849, went to press, our city was struggling with a fatal epidemic of cholera and every feeling which, by turns, occupies the human heart, was absorbed by one of fear, anxiety, and the most gloomy anticipations for the future. Truly the hand of affliction was upon us, and none so wise as to predict when it should be removed; yet the medical profession, with unimportant exceptions, remained at their posts, doing every thing that science, united to an enlightened philanthropy, could achieve to allay apprehension and mitigate human suffering.

Since that date, up to the present time, the cholera has remained in our city, fluctuating from one point to the other, and occasionally disappearing for one week, to re-appear the succeeding one, but always presenting the same or similar symptoms, and ever warning its intended victim by unmistakable premonitory evidences of its approach. Of the mortality, from week to week, by cholera, we have given a regular statement, and this article will bring the statistics on that subject, up to the first of January, 1850. We have alluded to the sanatory condition of our city, twelve months past, in order to contrast it with our present state of health. We need scarcely state that the balance is immensely in favor of 1850, and this should call forth from our citizens the most grateful acknowledgments to the disposer of life and death, for the unparalleled good health we now enjoy. We have no desolating epidemic to decimate our population,—no panic to disperse our people and to interrupt the course of commerce; the genial temperature of our climate, and the almost total exemption of our citizens from all forms of disease, invite strangers to our shores with every assurance of health and prosperity.

To indicate the sanatory condition of New Orleans, for the past nine weeks, we continue from our last number, the weekly statement of deaths;

					<i>Yellow Fever. Cholera. Total.</i>		
Deaths for the week ending	Oct. 27th,	"	72	"	2	"	172
" " " "	Nov. 3d,	"	47	"	7	"	148
" " " "	" 10th,	"	40	"	5	"	158
" " " "	" 17th,	"	36	"	8	"	153
" " " "	" 24th,	"	14	"	26	"	151
" " " "	Dec. 1st,	"	6	"	63	"	169
" " " "	" 8th,	"	2	"	43	"	174
" " " "	" 15th,	"	3	"	38	"	133
" " " "	" 22d,	"	2	"	14	"	116
" " " "	" 29th,	"	1	"	16	"	120
					223	222	1494

This abstract exhibits, the deaths weekly from yellow fever, cholera, and the total from all diseases; at the same time it must be remembered, that the explosion of the steamer "*Louisiana*," at our levee, about the 15th of November, causing the death of from seventy-five to one hundred persons, swelled the total to an unusual number, which should not, in our enumeration of deaths by disease, be included in the statement.—Many who survived the immediate effects of the explosion, died subsequently, either of tetanus, amputation, or secondary fever. We had intended to give a full detail of the nature of the injuries—number of amputations performed, and all the particulars, both medical and surgical, connected with this disastrous affair; but time has not permitted us to execute our design. The greatest mortality, from yellow fever, during the past summer, occurred for the week ending October 6th, and after this date it slowly declined, and may be said now, to be nearly or quite extinct.

As shown by the above table, the cholera increased as the yellow fever declined; when about the latter part of November, it attained its culminating point, after which, it steadily but progressively declined, and now it may be said to exist only in a few isolated instances, scarcely attracting any attention. This recrudescence or revival of the cholera, was, in all probability, produced by heavy and almost daily showers, accompanied with a humid and close state of the atmosphere; in fact, the thermometrical condition of the climate was almost precisely such as characterized the eruption of cholera, in December, 1848. Hence, we are forced to conclude that humidity united with a high range of temperature, gives force and effect to the choleraic virus, if it does not generate it *de novo*; since it has rarely failed to decline, on the appearance of clear, dry and cool weather. We believe we but echo the experience of every intelligent and observant physician in the city on this point; we have no hesitation in recording this as the result of our experience during the last twelve months. Notwithstanding the influx of thousands of immigrants, from Europe, during the past fall and winter, and many of them reaching our shores in great poverty and wretchedness, yet we have seen or heard of but little ship-fever or any other infectious disease, among such as have been admitted into the Charity Hospital—If the laws, regulating the number of passengers, in these vessels, according to tonnage, were strictly enforced and proper attention given to purification, ventilation, and good and wholesome diet, all contagious or infectious diseases might be obviated and our hospitals and public charities would cease to become the *foci* of infectious complaints—Results so desirable, can hardly be anticipated under the present arrangement, until the penalties prescribed by law, be strictly and impartially enforced.

Up to this time, our usual winter diseases, such as pulmonary complaints, variola, scarlatina, rubeola etc, have been quite limited, and with all the facts in our possession, we can safely assert that our city is in the enjoyment of unprecedented good health, notwithstanding the daily arrival of strangers from almost every quarter of the world.

A case of traumatic Aneurism. By WARREN STONE, M. D., Professor of Surgery in the Medical Department of the University of Louisiana.

SLAVE Anthony, aged about thirty, was received in my Infirmary November 28th, 1849. He said that in July he received a wound in an affray, in the neck, and lost a large quantity of blood; it was arrested and the wound healed, but a swelling commenced soon after, which had gradually increased up to the time of his admission to the Infirmary; upon examination, a large tumor was found upon the left side of the neck, which evidently contained coagulated blood, and I thought pus. A small cicatrix showed where the wound was. A careful examination showed that the carotid and internal jugular were not wounded. Auscultation gave no signs and I came to the conclusion that, either the external jugular, or one of the cervical arteries had been wounded. The tumor was full, the integuments were about to give way. It was necessary to do something; I concluded to open the tumor, empty the sack and secure whatever had been wounded. The opening was made when a small portion of the coagulum was discharged, a sudden gush of arterial blood took place. I placed my thumb upon the carotid artery, but with no effect; Dr. Compton, who has been long in the Hospital, was assisting me; he held the knife I had laid down, and I desired him to enlarge the incision, which was promptly done; the whole of the coagulum was forced out, and it was found the vertebral artery had been wounded. For a moment, a finger was thrust between the transverse processes, which controlled the violence of the bleeding, and lint was carefully applied for a permanent dressing, this controlled the bleeding; granulations shot out luxuriantly, filled the wound and plugged up the wounded artery. The patient is now well. Dr. McIlhenny was by his bed side, who could act if bleeding had occurred, but his services were not required. This is a new case so far as the artery is concerned, but the treatment is not new with me. I did design to make some observations upon wounded arteries, in connexion with this case, but I have not time for this number of the Journal.

Anniversary of the Physico-Medical Society of New Orleans.

This society, which numbers a large proportion of the respectable Physicians of the city, held its anniversary on the 3d of December, 1849, in the Hall of the Medical Department of the University of Louisiana. J. C. Simonds, M. D., member of the society and one of the Vice Presidents of the State Medical Convention, delivered an address before the society, on the "*Influence of the Medical Professions on the civilization of man*" For elegance of style, beauty of metaphor, and rhetorical splendor, it elicited the highest praise from all who heard it, and we would suggest that the society have it published in pamphlet

form for distribution and general perusal. After the close of the address, the society adjourned *en masse*, to Hewlett's Hotel, where they partook of a sumptuous dinner, ordered for the occasion. This annual reunion of the profession, around the social board, exercises a salutary influence, by encouraging a spirit of forbearance and liberality towards each other, every way worthy the noble science of medicine.

Dr. Fenner's Southern Medical Reports.

We are informed that the editor of this new *Project*, is progressing rapidly with his work. He has already received some valuable contributions; and is promised many more from various parts of the South, as soon as the year expires. The reports from New Orleans alone, with the statistics and historical notices of its Medical Institutions, will form an interesting portion of the first volume. He hopes to be favored with the transactions of all Southern Medical Societies as early as possible, that they may be in time for insertion. It is to be regretted that several of the State Medical Societies hold their annual meetings at so late a period as almost to preclude them from insertion into this volume. It is certainly desirable to have all such proceedings published together, as well for the convenience of the reader, as the more extended circulation of the document, and the spirit of laudable emulation which would thereby necessarily be engendered. These societies ought hereafter to hold their meetings about the first of February, which would allow ample time for transmission to New Orleans. The 15th or 20th of March is the latest day at which papers can be admitted into the forthcoming volume, which will appear about the first of May next, *without fail*. This enterprise will work a new era in American Medical History and will be particularly serviceable to the physicians of the Southern States, who have hitherto had more to do with *giving and taking* medicine than writing books upon it. We hope and trust that Dr. Fenner's untiring efforts to serve his profession and his country may be crowned with complete success.

Osteo-sarcoma of the lower jaw.

For a beautiful specimen of this disease, we are indebted to Dr. A. M. Clemens, of Macon, Miss., who removed it from a negro man, aged about 30 years. This disease originated without any obvious cause; and, as usual, proceeded from the cancellous structure of the bone; it was attended from the commencement with considerable pain; grew rapidly, and Dr. C. wisely determined to remove the inferior maxilla with the diseased structure. This was executed in the usual manner; the bone was divided at the symphysis, and as far back as the angle, thus including the morbid structure. The operation was performed during the past summer, and up to this time the cure seems to be perfect. Dr. Clemens stands high in the country for skill, as a physician, and has already performed, besides the above, several important surgical operations with success.

Medical Department of the University of Louisiana.

Introductory, &c.

THE usual introductory, at this flourishing medical school, took place, as announced, about the middle of November, before a large class of medical students. Through the politeness of Professor T. Hunt, we attended his introductory, and we shall now proceed to give the reader a brief, and of course, an imperfect sketch of the very eloquent address delivered by that gentleman. As a preliminary, we may say that Professor Hunt's chair comprises both physiology and pathology—two branches of medicine mutually sustaining each other in their ultimate tendencies. The object of this Lecture was to lay before the class a complete history of pathological anatomy, or morbid pathology; and suffice it to state that it was ably and satisfactorily accomplished. The learned lecturer opened his address by alluding, in a very happy manner, to the many and glorious benefits which the cultivation of pathological anatomy had conferred upon practical medicine; spoke of its having imparted a greater degree of certainty to diagnosis; urged the importance of its study upon the class, and claimed for the medical college of La., the distinction of having founded the first professorship of special pathological anatomy in the United States.

Professor Hunt expressed a hope that other medical schools throughout our country would follow the example of the Louisiana Medical College. Proceeding then to define strictly this branch of medicine, he entered into specifications; claiming *anatomy* as the basis of this, as of all the other departments of medicine. Organs, said the lecturer, with as much eloquence as truth, act or they possess the power, or faculty, or property of action. The action of an organ is its function. The organ, or, rather all the organs in normal action, constitutes life. The consideration of the above subject, or propositions, belongs appropriately to physiology.

Professor Hunt next adverted to the definition and divisions of pathological anatomy, and this branch of medicine he styled the science of man's diseased organization, and of his congenital and abnormal malformation. He divided it into general and special; general pathological anatomy treats of all the lesions common to the human body, when the consequence of the derangement of the organic elements, constituting the organism. Special pathology treats of the lesion of particular tissues; of the causes of those lesions (semiology); of their modes of production; of the internal and external changes resulting from such lesions or morbid alterations. He then adverted to pathological anatomy, and claimed it, (and justly too,) as due to modern medicine, for we may search in vain the early history of our art, for the faintest trace of this branch of medicine; it did not exist; it had not yet lent its helping hand to the healing;—the divine art; the art of curing. We cannot refrain from copying here an appropriate quotation from Cuvier, introduced by Professor Hunt. "Cast feeble and naked on the surface of the globe, man appears to have been created for inevitable destruction; evils assailed him on all sides; remedies lay hidden, con-

cealed from him; but he was endowed by God with a genius for thier discovery."

Professor Hunt gave a rapid, but learned sketch of the early struggles of medical science; made some happy allusions to the primitive days of the fathers of physic, and closed his erudite and masterly effort by enumerating some of the beneficial results which had flowed from the cultivation of pathological anatomy. We regret our limited space compels us to give this very meagre sketch of the Professor's able introductory. For learning, scientific research, and eloquence, it has been seldom equaled, and we predict for the author a distinguished position among the lecturers of the day.

The school is now in successful operation, and the number of matriculants, already enrolled, exceeds one hundred and sixty students, attracted hither by the mildness of our climate; the growing reputation of the Professors, and the superior advantages for *clinical* and *anatomical* instruction.

Dr. Bennet Dowler and the Medical Press.

The contributions of Dr. Dowler to Physiological, as well as to the collateral sciences, have elicited high commendation from the medical press, throughout our almost boundless country. His bold and original views; his slashing criticisms; his great learning and his inductive powers of reasoning, at once challenge our admiration and extort the highest encomiums from the pen of the critic. Our readers may expect to hear from Dr. D. in the March number of the Journal; in the mean time, let them be prepared to read something both rich and original.

To the Correspondents and Patrons of the Journal.

As every Medical Journal depends more or less for patronage and support, upon the quality and *quantity* of the *original matter* admitted into its columns, we have given more space to this department than usual, and thus encroached upon the division of the Journal, for "Excerpta" and other miscellaneous medical intelligence. The Review matter also occupies a considerable portion of this number; but we trust the reader will appreciate our feeble efforts to keep the profession fully advised of the progress of medical and surgical science. We have labored hard—constantly, and our efforts shall be in future, invoked to add to the value and interest of the Journal. To those who have contributed to its pages and sustained it thus far, either by subscription, or otherwise, we feel truly grateful. As editor, alone and unaided, we should succumb under such heavy responsibilities, but for the kind indulgence and encouragement of our too partial friends.

STATE OF LOUISIANA, }
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ABSTRACT OF A METEOROLOGICAL JOURNAL FOR 1849.

By D. T. LILLIE, & Co. AT THE CITY OF NEW ORLEANS.

Latitude 29 deg. 57 min. Longitude 90 deg. 07 min. west of Greenwich.

WEEKLY.	THERMOMETER.			BAROMETER.			Course of wind.	Force of wind.	Rainy Days.	Quantity of Rain.
	Max.	Min.	Range	Max.	Min.	Range		Ratio 1 to 10		— Inch's.
1849.										
Oct. 27	75 0	54 0	21 0	30 30	30 00	0 30	N	3	1	0 410
Nov. 3	74 0	54 0	20 0	30 35	30 09	0 26	N	2 1-2
" 10	79 0	47 0	32 0	30 19	30 06	0 13	S E	2 1-4	1	0 180
" 17	73 0	46 0	27 0	30 09	29 94	0 15	S E	2 1-2	1	0 075
" 24	69 0	51 0	18 0	30 04	29 90	0 14	E	2	2	1 760
Dec. 1	73 0	56 0	17 0	30 28	29 65	0 63	E	2 1-4	4	2 685
" 8	71 0	44 0	27 0	30 24	29 60	0 64	N	2 3-4	2	0 930
" 15	70 0	33 0	37 0	30 46	29 98	0 48	E	2 3-4	4	0 655
" 22	76 0	41 0	35 0	30 30	30 05	0 25	S W	2 2-4	1	0 020

ERRATA-

The following *erratta* which crept into our last number, appeal at once to the Printer, and to some of our Correspondents, who write so indistinctly as to defy the compositor, no less than the *Editor*.

- 1st. For *duplications*—p. 367, line 44—read, *duplicatures*.
 - 2nd. For *Nilson*—p. 367, line 47— read, *Wilson*.
 - 3d. Same mistake as under 3d head—p. 367, line 48.
 - 4th. For *seem*—p. 368, line 2 read *serve*.
 - 5th. For *venvous*—p. 368, line 3—read, *venous*.
 - 6th. For *sphinctets*—p. 368, line 14—read. *sphincters*.
 - 7th. P. 368, line 23—same error as under 5th head.
 - 8th. P. 368, line 30, same error as under 2d. head.
 - 9th. For *nervous*—p. 269, line 4,—read, *venous*.
 - 10th. For *cardace*—p. 369, line 6—read, *cardiac*.
 - 11th. P. 369. line 18—same error as under 11th head.
 - 12th. For *finding such*—p. 370, line 2—read, *feeding on*.
 - 13th. For *man is*—p. 371, lines 12, 13—read, *we are*.
 - 14th. For *He gives us reason*—373, lines 41, 42—read, *He gives us no reason*,
 - 15th. For *unitalicise*—p. 373, line 50—read, *we italicise*.
 - 16th. For *one mechanical*—p. 374, line 17—read, *our mechanical*.
 - 17th. For *theses*—p. 374, line 45—read, *theories*.
- All the above errata occurred in a Review signed *D. W. B.*

THE
NEW ORLEANS
MEDICAL AND SURGICAL
JOURNAL,
DEVOTED TO MEDICINE
AND THE
COLLATERAL SCIENCES.

EDITED BY
A. HESTER, M. D.

MARCH, 1850.

"Summum bonum medicinæ, Sanitas."—GALEN.

NEW ORLEANS:
PUBLISHED BY WELD & CO., NO. 68 CAMP STREET.

.....
1849.

ERRATA IN "REPORT OF BOARD OF HEALTH."

At page 10, at 16, 17, and 18 lines from bottom, for "twice" read sixty times.

" " " " " " for "three" times read forty.

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TO READERS AND CORRESPONDENTS.

Our correspondents will please send in their communications for the *May* number of the Journal. We again request them to condense as much as possible. Short and practical papers are preferable to communications extended to a tedious length. Our aim is to be brief and to the point; and to this end we solicit the aid and co-operation of our friends.

We have received, besides our usual exchanges, several valuable Journals from abroad; also the following books and pamphlets for review:

I.—Introductory Lecture to the Course of the Practice of Medicine delivered in Jefferson Medical College, October 16, 1849. By J. K. Mitchell, M. D., Philadelphia, 1849. (From the Author.)

II.—Statistics of Cholera; with the Sanitary Measures adopted by the Board of Health prior to, and during, the prevalence of the epidemic in Philadelphia, in the summer of 1849; Chronologically arranged. *Prepared by the Sanitary Committee*, approved by the Board, and ordered for publication October 10th, 1849.

(From the Committee.)

III.—The Study of Medicine; an Introductory Lecture, delivered in the Hall of the Philadelphia College of Medicine, October 15th, 1849. By Thomas D. Mitchell, M. D., Professor of the Theory and Practice of Medicine. (Published by the Class.) Philadelphia, 1849.

(From the Author.)

IV.—The Transactions of the American Medical Association; instituted 1847; Vol. II; Philadelphia. Printed for the Association. By T. K. and P. G. Collins. (From T. L. White, 53 Canal street. Pages, 956.)

V.—A Practical Treatise on the diseases of Children. By Dr. Francis Condie, M. D., Secretary to the College of Physicians; Member of the American Medical Association; Member of the American Philosophical Society; Honorary member of the Philadelphia Medical Society, etc., etc. Third edition: revised and augmented; Philadelphia; Lea & Blanchard, 1850. pp. 703.

(From the Publishers.)

VI.—Principles of Human Physiology; with their chief applications to Pathology, Hygiene, and Forensic Medicine. By William B. Carpenter, M. D., F. R. S., F. G. S., Examiner in Physiology, in the University of London; Corresponding Member of the American Philosophical Society, and the National Institute of the United States; Lecturer on Physiology at the London Hospital Medical School. Fourth American edition; with extensive additions and improvements, by the Author; with two plates, and three hundred and four wood-cuts. Philadelphia; Lea & Blanchard; 1850. pp. 750.

(From Thomas L White, 53 Canal Street, N. O.)

VII.—Introductory Lecture; delivered in the College of Physicians and Surgeons of the Upper Mississippi. Session 1849–50. By John F. Sanford, M. D., Professor of Surgery, Davenport.

(From the Author.)

VIII.—A Practical Treatise on the most Common *Diseases of the South*; exhibiting their peculiar nature, and the corresponding adaptation of treatment. To which is added an appendix, containing some miscellaneous matter; also, a glossary, explaining the technicalities, or medical phrases, used in the work. By Thomas McGown, M. D., Graduate of Transylvania University; Member of Lexington Medical

Society, and a Practitioner of the South. Philadelphia; Grigg & Elliot, 1849. (From the Author.)

IX.—A Catalogue of Books; on Anatomy, Medicine, Surgery, Midwifery, Dentistry, Chemistry, Agriculture, etc., etc. From Samuel S. & William Wood, New Work, 1849. *This Catalogue embraces a splendid library of Medical Works*, and the publishers will accept our thanks for several copies.]

X.—Life of Nathaniel T. Otis, jr. By Frank H. Hamilton, Professor of Surgery, etc.

XI.—An Introductory Lecture. Buffalo, 1850.

XII.—Transactions of the Medical Association of Southern Central New York, at the annual meeting, held at Cortlandville, June 5th, 1849. (From the Association.)

XIII.—An Introductory Lecture; delivered in the University of New York, session 1849–50. By Valentine Mott, M. D., Professor of Surgery. (From Author.)

XIV.—The New Jersey Medical Reporter; and Transactions of the New Jersey Medical Society, for January, 1850. Burlington.

XV.—An Introductory Lecture; delivered at the Massachusetts Medical College, November, 1849. By Henry J. Bigelow, M. D., Professor of Surgery, in Harvard University, Boston.

XVI.—Medical Communications from the Massachusetts Medical Society; Vol. VIII, No. 1. Second Series—Vol. IV, part 1. Boston, 1849. (From the Society.)

XVII.—Northern Lancet and Gazette of Legal Medicine, devoted to Medical Science, News, Criticism, etc. etc. Edited by F. J. D'Avignon, M. D., and Horace Nelson, M. D. Vol. I, No. 1. January, 1850. Subscription one dollar per annum, in advance. Plattsburgh, New York. (This is a neat and cheap periodical, and deserves patronage.—Ed.)

XIX.—The Dublin Medical Press, weekly. Three numbers for January, 1850. (In exchange)

XX.—Three Lectures, preliminary to a course on the PRINCIPLES and PRACTICE OF SURGERY; delivered on the 4th, 8th, and 9th of October, 1849, before the Medical Class of the University of Pennsylvania. By William Gibson, M. D., L. L. D., Professor of Surgery, etc. Published by the Class. Philadelphia, 1850. (*These Lectures are extremely interesting; containing a lively description of the personal appearance of the great surgeons and physicians of Europe. In our next, we shall copy some of these descriptions.*)

XXI.—The Half-Yearly Abstract of the Medical Sciences, from July to December, 1849. Edited by W. H. Ranking, M. D., Cantab; assisted by W. H. Guy, M. D., George Day, M. D., Henry Ancell, M. D., and W. Kirkes, M. D. (This periodical costs but \$1 50 per annum, and contains an immense amount of useful Medical knowledge.)

XXII.—Statistics of the Charity Hospital of New Orleans, from January, 1830, to January, 1849. From Henry Bier, Esq., the efficient Treasurer of the Hospital, and Secretary to the Board of Administrators.

XXIII.—The St. Louis Probe; a medical paper; Edited by A. J. Coons, M. D., and John R. Atkinson, M. D. February 15th, 1850. Vol. I., No. 2; monthly; at \$3 per annum.

XXIV.—Observations on Planetary and Celestial Influences in the promotion of Epidemics, and on the Nature and Treatment of diseases. By John S. Bowron, M. D., late Commissioner of the State of New York, in reference to Public Hospitals, etc., 1850.

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MEDICAL AND SURGICAL JOURNAL.

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FOR MARCH, 1850.

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MARCH, 1850.

Part First.

ORIGINAL COMMUNICATIONS.

I.—RESEARCHES *on the Nervous System—Sensation, and the relation between nervous matter and the objects of impression.* By the late Professor JOHN HARRISON, M. D., of New Orleans.

(Continued from the January Number, 8150.)

It must not be forgotten that the nervous matter diffused in the solids exerts a powerful control over those actions which make up the phenomena of life. If it be changed in its condition, the actions of nutrition, secretion, and absorption are modified.* The influence exercised by the organic solid molecules, by the nervous matter, and by the nutritive fluid are all reciprocal. There is a perpetual change going on among them all. In health, their operations going on throughout the entire system are not felt, because it is the established, the physiological condition of the nervous substance; whereas, all sensations result from a disturbance of this state, either by the intervention of outward objects, or by internal causes. Many of these internal changes in the nervous substances are the necessary results of the actions going on in the system. Hunger, thirst, &c., are examples of this species of sensation; the primary causes thereof seeming to be the

* See Lesions of "innervation."

blood itself, which, during the process of nutritive action, has become altered in its constitution.*

We now see what a number of phenomena may be explained by the admission of the simple law, that "every change in the condition of the nervous matter, must alter its relations with the object of impression;" which, in truth, is itself embraced in the higher law, that the objects of impression operate on the nervous substance as matter acts on matter throughout the universe.

The affection begun in the expansion of the nerve continues the same along the nerve to the encephalon, unless the nerve be diseased in some part of its course. This we may assure ourselves of, by considering that if the particular affection did not so continue, we could not experience different sensations.

Sensation, in ordinary cases, occurs from the transmission of impressions from the periphery to the encephalon; but in dreams and in disease they often occur when there exist no external objects to excite them. In these cases are we to suppose that the nerves, from some internal cause, are affected prior to the encephalon? Are they affected together? or is the encephalon alone affected? We cannot set limits to nervous affections, as the system in its functions of transmission is an unit; changes in its condition in any one part, bringing about a change in the whole. The questions above cannot, then, be satisfactorily answered. But we see no good reason to believe that the nerve must, of necessity, be the portion first affected. To the encephalon eventually arrive all impressions from without, and until the change which has taken place reaches there, sensation does not exist. Now, if, from any internal actions, the brain should be thrown into that condition, which is the result when an impression on the periphery is transmitted there, it is evident that a sensation must arise precisely like one occurring from an external cause.

SENSORIUM.—We have frequently spoken of transmissions of im-

*The following extraordinary account of an entire revolution in the character of sensation, &c., is given by Sir Humphrey Davy. The arterial blood was changed in its constitution by the inhalation of nitrous oxide: "A thrilling," says he, "extending from the chest to the extremities, was almost immediately produced. I felt a sense of tangible extension, highly pleasurable in every kind; my visible impressions were dazzling, and apparently magnified. I heard distinctly every sound in the room, and was perfectly aware of my situation. By degrees, as the pleasurable sensation increased, I lost all connexion with external things; trains of vivid visible images rapidly passed through my mind, and were connected with words in such a manner as to produce perceptions perfectly novel. I existed in a world of newly connected and newly modified ideas. When I was awakened from this same delirious trance by Dr. Kinglake, who took the bag from my mouth, indignation and pride were the first feelings produced by the sight of the persons about me. My emotions were enthusiastic and sublime, and for a moment I walked round the room perfectly regardless of what was said to me. As I recovered my former state of mind, I felt an inclination to communicate the discoveries I had made during the experiment. I endeavored to recall the ideas; they were feeble and indistinct. One recollection of terms, however, presented itself; and with the most intense belief and prophetic manner I exclaimed to Dr. Kinglake: "Nothing exists but thoughts; the universe is composed of impressions, ideas, pleasures, and pains."

pressions to the encephalon: here is the proper place to give the proofs of such transmission.

If we divide a nerve, or if it be disorganized by softening, or any other lesion of nutrition, the organ or organs with which the nerve is connected becomes insensible to all impressions. Hence, in the *higher animals*, to experience a sensation from outward objects, a nerve communicating with the encephalon and periphery is absolutely requisite.*

But most of the nerves do not communicate directly with the encephalon: their connection is with the spinal marrow. It is still to be proved that the changes in the nervous system do not stop there, but are transmitted to the encephalon. The proofs are experimental, and are the same which demonstrate that the changes which occur in voluntary motion commence within the cranium, and not in the spinal marrow. Divide the spinal marrow by sections from below upwards, even as far as the first vertebra, provided artificial respiration be employed, and all parts supplied by nerves below the last division are rendered insensible, whilst those above retain their usual functions. Some change is then made in the nervous matter at the periphery, which is transmitted along the nerve to the encephalon. This change, and the transmission of it, must, of necessity, occupy much time; but to us the quantity is incapable of appreciation, so that the contact of the foreign body and our sensation of it are simultaneous.

Let us now come down from the anterior cerebral lobes. We shall find, in the first place, that the brain may be cut, burnt, pricked, &c., without a sensation being the result. Slice it away piece-meal and the animal gives no evidence of feeling the pain of the wound until we cut just before the tubercula quadrigemina, when it gives unequivocal symptoms of suffering pain.† What do these experiments prove? They prove (and it is necessary to be strict in the enunciation thereof) that changes in the substance of the brain proper, produced by mechanical agents, do not produce sensation. The brain, then, is not the sen-

* We have emphasized the words, *higher animals*; for the proposition becomes less and less applicable as we descend in the scale of life. The snail not only continues to live, but regains the head he has lost. Some worms when divided become separate living beings, each possessing volition and sensibility, &c., &c.

In these animals a visible nervous system exists: but as we continue to descend in the scale of beings, even this at length is lost to us. It is hardly perceptible in the holothuria, and as to the asteria, there is a dispute whether a nervous system has even been recognized in them. (See Dict. des Sc. Naturelles. Art. Zoophyte.) In the hydra of Trembley, none has ever been discovered. Yet do these animals as well almost all others among the lower class of the radiata, evince to the observer that they possess the faculty of perceiving the impressions of external objects. Indeed, as the nervous system becomes less visible, so does the capability of multiplying by division increase; so, that not only in this particular, but in many others, we approach towards vegetable life. In the lower zoophytes, the nervous matter seems to be reduced to its elementary form, homogeneous throughout, and diffused in the other solids, and capable wherever it exists of performing the same functions. A few more alterations in the chemical constitution of the organic molecules, and we have the vegetable. Yet even here there still remains in some individuals, (the *Dionda Mescipula*, &c.,) some trace of those functions which form the essential character of animal life.

† See experiments of Lovey, Legallois, Flourens, &c.

orium. They further prove that these changes are not transmitted to the sensorium. And, in fine, as sensation occurs after ablation of the brain, they demonstrate that the sensorium exists somewhere between the tubercula quadrigemina and the first pair of cervical nerves.* This, in truth, is all that can be said concerning this mysterious subject; for the instant we begin to refine, to contract the limits of this spot in order to reconcile the truths obtained by experiment, with the interior sentiment of unity of consciousness, we attempt to reconcile incompatibilities—physics with metaphysics—material objects with mental abstractions.

The cerebellum being apparently a continuation of the posterior column of the spinal marrow, it is a natural inference that it has some share in the production of sensation. Such, however, is not the fact. When cut, torn, &c., the animal remains unconscious.†

We have already offered some remarks in favor of the position that the olfactory, optic, and acoustic nerves have each sensoriums of their own.‡ This doctrine, founded on anatomical considerations and physiological experiments, may seem at variance with that internal consciousness which we have of unity in the sentient being. From whatever part of the body our sensations come, be they of vision, or hearing, or smell; whatever affections we experience, of thought, of emotions, or the passions, there still remains through all, and in all, a conviction, deep and irradicable, that it is one and the same being who feels thus variously. As soon, then, as we assign location to this being, we get into inextricable difficulties: and yet the physiological experiments mentioned above conclusively show, that neither the nervous matter of the brain or periphery is, properly speaking, sentient that sensation, that mysterious result of a change in nervous substance, takes place in the medulla oblongata, the optic tubercles, &c., Bouillaud, by his experiments, seems to have proved that the brain proper, is the organ of the intellectual functions; § that when it was abstracted these functions were annihilated, whilst sensation remained. Now, the being that experiences sensation is the same being that thinks, judges, inquires, and remembers; at least, such is what we are told by metaphysicians, and such, in truth, is what every man announces when making use of the personal pronoun "I;" which is but the expression of a belief in its personal identity through the past, in the present, or for the future. But here, as demonstrated by these experiments of Bouillaud, we have this immaterial substance of the metaphysicians operating in two distinct portions of the nervous mass in different ways. It re-

* According to Flourens, when the medulla oblongata is divided *at or below* the origin of the pneumogastric nerves, the respiratory movements cease; when divided a few lines above the origin of the same nerves, respiration continues, ceux [les movemens] de la tête continuaient aussi, il ne manquaient plus qu'une certaine harmonie entre les uns et les autres: harmonie interrompue par l'interruption même du siège dont elle émane. (*Recherches Exper., &c.*, p. 178.)

† See experiments of Rolando, Flourens, and Majendie.

‡ Comparative anatomy informs us that as animals have greater powers of smell and sight, so respectively are the tubercles of the olfactory and optic nerves more largely developed.

§ See *Jour. de Physiol.* tom X—Flourens infers from his experiments that the cerebrum is the organ of sensation. That they prove no such thing one can be convinced by a perusal of them. See his *Recherches expérimentales*. See, also, the report on his *Mémoire*, by Cuvier. Also, Bouillaud, *op. cit.*

sides in the brain, and in the medulla oblongata; but whatever can be conceived thus diffused over a certain space, can also be conceived capable of division; and we run at once upon incompatible ideas; that of unity, and that of divisibility.

Some physiologists have attempted to reconcile the unity of the sentient being with the divisibility of matter. The mere statement of this doctrine is almost enough for its overthrow.

The hypothesis is, that there exists some common centre (*sensorium commune*) to which all affections of the nervous system are transmitted; that a connection with this centre and the rest of the system, is indispensable in the production of a sensation, or any other spiritual affection. In fine, that it is in this spot that the mind becomes sentient.

This doctrine is utterly irreconcilable with the fact, that many of the inferior animals (e. g., the fresh water polypus, the *asteriæ*, the *lumbricus terrestris*, &c.) become, after being divided, two or more separate and distinct beings, each possessing volition and sensibility. It is, also, adverse to the fact, that we can, and do constantly, experience many various sensations at the same moment of time. We may hear, see, smell, &c., at the same instant. Now, how is it possible to conceive that vision, tact, taste, hearing, &c., together with many operations of the intellect, are all referred to the same spot, and there perceived at the same moment?

Anatomy demonstrates no such spot.* Between the optic tubercles and first pair of cervical nerves, it is true, that experiments show *sensation* to take place; but sensation is only one affection on the sentient being; and it is equally true, on the other hand, that ablation of the cerebral lobes destroys the intellectual operations.

Lastly, these objections apart, the hypothesis, if admitted, would give us no assistance in clearing up the mystery. The nervous system is material; and however small we may imagine this central point to be, it must be capable of division—if not practically, at least in our thought. Now, if it be difficult to conceive that many atoms are at once affected in our different sensations, is the conception that would limit the affection to one atom at all easier? We cannot arrive at indivisible unity through matter, cut it down as we may. We can as easily conceive that immaterial mind is united to an hundred atoms, as to one; the conception in both cases being impossible.†

Nature of Sensation—Materialism, which may be presented in

* Hence the reveries of men on this subject. Descartes, it is well known, fixed upon the pineal gland; Lancisi chose the corpus callosum; Digby, the septum lucidum; Drelincourt, the cerebellum; Willis, the corpora striata; Vieussens, the centrum ovale of the great hemispheres, &c.; Sommering, finding all the solid parts disposed of, settled on the fluid of the ventricles as the seat of the soul!

† If it be supposed so completely divested of all the qualities of matter as not to be extended, nor consequently divisible, it is, then, *mind*, which is asserted under another name, and everything which is at all important in the controversy is conceded, since all which can philosophically be meant by the immaterialist, when the existence of mind is asserted by him, is the existence of an indivisible subject of all those affections which constitutes the very existence of our thoughts and feelings.

Dr. Brown—Lectures, vol. iii. p. 433

three different forms: 1. That sensation, thought, &c., are the results of the functional actions of the nervous substance, as bile is the result of the actions going on in the liver.

2. That sensibility, &c., are *properties* of an imponderable fluid supposed to reside in the encephalic mass, and of which the nerves are conductors to the periphery; and again from the periphery to the brain. Sensation, &c., are, then, the *affections* of this fluid.

3. That they are *properties* of the nervous substance.

The argument on which these several hypotheses are based, are nearly the same for each and all. We shall, therefore, throw the arguments together, but mention the objections to each specially.

It is contended, that there is an invariable connexion between the existence of the nervous substance and the phenomena of sensation. Even in those animals which were long supposed to possess no nervous motion, microscopical observations are daily demonstrating its existence. We may, therefore, fairly infer its existence in those beings in which it has not yet been demonstrated, but which give unequivocal evidence of perceiving the impressions made by external objects. From invariable connection we must ever infer cause and effect.

That sensation, &c., may take place, the nervous substance must exist under certain circumstances. It must possess a certain chemical constitution, and a certain arrangement must exist among the molecules composing it. In the higher animals, the constant presence of arterial blood is also requisite: stop the current going to the brain, or exchange the proper fluid for some other, and you instantly arrest these mysterious phenomena. We, therefore, contend, that sensation, &c., are the results of a change of state in the nervous substance; in other words, they are the affections of the nervous substance existing in certain conditions.

It follows, too, from the same law, that all injuries of the nervous matter, all disturbances either in its chemical constitution, or in the arrangement of its molecules, must impair, alter, or even annihilate these phenomena. So, do we see, that just as the nervous matter is altered by external injuries, or by disease, we have correspondent effects: coma delirium, mania, insanity, loss of memory, morbid sensations, &c.*

Hence, too, it is, that certain animals, after division of their bodies, retain sensibility in each separate half. Their organization is simple, approaching that of vegetables. There exists no complete organs, with functions reciprocally depending on each other for the elimination of the nutritive fluid. The elements of nutrition, imbibed by absorption, are converted into this fluid, which, in its turn, coming in contact with the nervous substance, the usual results are produced.

Sensibility and the mental powers correspond with the development of the organization, as likewise are they impaired in the decline of life. "As

* Moreover, there is a strict analogy between the effect produced by mental application and those resulting from over exercise of the nervous system elsewhere. We are exhausted by study as soon as by muscular exertion. In both cases the nervous substance seems to have undergone an alteration in consequence of its own actions; so that it is rendered unfit for the further performance of them.

the nerves acquire their powers, and the cerebral jelly becomes firmer, the mind gradually strengthens; slowly advances, with the body, through childhood to puberty; and becomes adult when the development of the frame is complete. It is, moreover, male or female, according to the sex of the body. In the perfect period of organization the mind is seen in the plenitude of its powers; but this state of full vigor is short in duration, both for the intellect and the corporeal fabric. The wear and tear of the latter is evidenced in its mental movements; with the decline of the organization the mind decays; it becomes decrepit with the body, and both are at the same time extinguished by death.

“What do we infer from this succession of phenomena? The existence and action of a principle entirely distinct from the body? or a close analogy to the history of all the organs and functions?”*

The same correspondence of the mental powers and development of organization in the cerebral mass is found in the animal series. “The large cranium and high forehead of the ourang-outang lift him above his brother monkeys; but the development of his cerebral hemispheres and his mental manifestations are both equally below those of the negro. The gradation of organization and of mind passes through the monkey, dog, elephant, horse, to other quadrupeds; thence to birds, reptiles, and fishes; and so on to the lowest links of the animal chain.”†

Finally by the processes of nutrition, secretion and absorption, (which, combined in this new form, is called generation,) one organized being is produced from another. The new being is built up of material furnished by the old. Does the parent furnish an immaterial principle (or substance) to the offspring? No—such cannot be the case: because, the very essence of this principle, as contended for, is indivisible unity. At what time, then, is it united to the material organ? Whence and how is it derived?

We cannot gainsay these arguments. The facts on which they are based are undoubtedly true, and the inferences from them seem to be direct; yet how little assistance they give us in settling this mysterious subject, the following remarks will sufficiently show:

The doctrine that sensation, thought, &c., are the results of the functions of the encephalic mass, is one, at present, in much repute. Let us, on the facts and arguments above mentioned, admit the truth of it. But do we really make any advancement by admitting all this? Do we not, in truth, pay off ourselves in words?

The liver secretes bile; the secretion of bile is the function of the liver; and bile, a *physical* product, is the result of those chemical actions undergone by the material of the organ and the arterial blood. But where is analogy to be found when we turn to the brain and examine the results of its actions? The production of sensation, &c., is the function of the brain; and the existence of the sensation is the result; but where is the *visible*, the *tangible*, the *physical* product? It

* See Lawrence's Lectures on Physiology, &c., p. 98. † Kidd.

‡ We shall show presently that this doctrine is probably true. In the present objections we only war with the forced analogies that would liken this result to that of any other function in the body.

must be obvious that no secretion, no deposition, nor change of any kind in matter, can reach the explication. Our outward spirit comes in contact with a nerve, and a sensation is the consequence. Now let us, relying on analogy, conceive, in all manner of ways, how such an object could affect the nerve as mere matter. We shall find that all its varieties of affection may be reduced to two of a general nature. We can conceive that a movement, and nothing more, occurs among the molecules of the nervous substance; or, we can conceive that in addition to such motion, a chemical change takes place: admit, then, that either or both of these affections are transmitted to the encéphalic mass; have we yet reached a solution of the mystery? "Matter and motion," says Hartley, "however subtly divided, or reasoned upon, yield, "nothing but matter and motion still.* Sensation, thought, &c., are very different, and essentially distinct from motion and chemical action; for out of the living body no man dreams of any such result occurring, when an acid combines with an alkali, or when one billiard ball impinges against another.

The second form of this hypothesis, which makes sensation, &c., affections of a peculiar imponderable fluid, comes to us burdened with all the difficulties encumbering the others, together with a plentiful share of its own. It is a pure hypothesis, to suppose the existence of any such fluid.† But if admitted to exist, what becomes of it in syncope, asphyxia, &c. How comes it to be so dependent on the nutritive fluid and on the good condition of the encephalic mass? As it is supposed to be an elementary substance, it is plainly incapable of change; how comes it, then, that we have marked sensations, &c.‡

The third form is no better. To say that sensibility, &c., are properties of the nervous substance is false; since this substance removed from the living being is no longer sentient. To say that they are properties of the nervous matter, existing under certain circumstances, is merely to repeat, that sensation, &c., will be produced if these circumstances occur, e. g. that we shall experience a sensation if an outward object comes in contact with the body when in a state of health; being the mere announcement of the phenomena in other words; so that we find ourselves just in the position we were in, when we began the examination of the hypothesis in its first form.

Sensation and thought, then, are mysteries left unexplained by the hypothesis of the materialists. But the subject assumes quite a different aspect when dogmatism rushes in and cuts short all further inquiry by announcing, *ex-cathedra*, the existence of an immaterial principle. For it may be replied, that truth in matters of science is arrived at by long and patient induction. It is necessary to receive and examine a vast multitude of specialities to settle their exact value, to set

* Observations on Man.

† See Chap. on "Nature of Nervous Influence.

‡ We may say with Lawrence, "that subtle matter is still matter; and if this fine stuff can possess such properties, surely they may reside in a fabric which differs only in being a little coarser." Lectures, p. 78.

the errors of observation and hasty influence; ere it be possible for us to mount to that classification of ultimate facts, which constitutes the general principles or laws of science, and of which all the separate facts are but modifications. Hence it is, that when men take separate roads in matters depending on the same principles, the conclusions they arrive at must of necessity be different. Universal nature is an immense circle composed of smaller circles cutting each other in a thousand points. No one science can far advance without running into many others. Nature has not divided off her operations into those of chemistry, astronomy, mechanics, physiology, &c. These are the necessary, but artificial divisions of man—not of nature. Choose any substance you please, and you will find it has multiplied relations with all other substances; hence it may be the subject of all the sciences. A piece of charcoal, to day the subject of investigation by the minerologist, may be to-morrow that of the chemist; in a few days more, it may come under the vegetable physiologist; in a few more it may be contemplated as making up the forms described by the geologist; or by the astronomer as forming a part of one of the planets; or, entering into the animal economy, it may be considered as forming an element of that mysterious pulp, which is at present the subject of our studies.* The natural separation, then, of psychology and physiology, can but be the course of discordant results. How is it possible that the doctrines of either can be true, when opposed to the facts demonstrated by the other?† The subjects of their investigations have been wedded by nature, but are torn asunder by the violence of man. To think that we shall comprehend the mental operations without taking into consideration the material organs, is as absurd as to confine our studies to those organs, without including the functions they perform.

Sensation and thought, it is said, cannot be affections of matter, because such a doctrine is opposed to our fundamental notions of matter. Matter is that which is extended, and resists our efforts to compress it: mind that which perceives, judges, hopes, and fears. They must, therefore, be of distinct and separate essence. Such an inference is plainly a begging of the point in question.

No one has ever denied that whatever was extended and resisted our efforts, ought to be called matter; for, in truth, it would be a ridiculous dispute concerning the application of a word. But who, on the other hand, will contend that extension and resistance are the only properties of matter? We see matter surrounded by other matter, affecting it and being affected in turn. Who can comprehend these mysteries? Who is able to tell us why one globule of mercury approaches another globule; or why a stone returns to the earth, when thrown into the

* Thus the facts revealed by investigations in any of the sciences are of constant use and application in the others. What value can we attach to the observations of the micrographer who is ignorant of the chemical and optical laws of light?

† *Ex gratia*—How is it possible that the hypothesis of an immaterial, indivisible, sentient being, can be true, when we find sensation and independent volition existing in each of the parts of a divided worm? Or can any one be found mad enough to deny volition and sensibility to these beings? If so, he will find that he is attempting to undermine the foundations upon which all science rests—analogy. By the same rules he might fully as well deny these affections to every thing in the world save himself.

air? These are phenomena equally mysterious; equally incomprehensible; and, to all appearance, equally *spiritual*, as those of thought and sensation.*†

Chemistry has taught us that the elementary materials of this planet are few in number, compared with the multitude of compound bodies which surround us. Now, whatever new properties a compound may exhibit, these properties can only be the manifestations of the original tendencies of its elementary atoms. These placed in novel relations with other substances, unfold their hidden tendencies; and all the art of chemistry is but to place these molecules under such circumstances, that this development may occur; that antagonizing tendencies may be neutralized, and hidden properties revealed to the enquirer. And what wonders has she brought to light; what secrets, before unsuspected, have been given to the world! Yet, what is the chemistry of man, to that employed by nature! What is the laboratory of the artist, compared with that in the organization of a living being!

* The celebrated author whom we have quoted more than once has employed similar arguments to show that we might just as reasonably subdivide mind itself into distinct and separate substances.

La sensation et la pensée, que les philosophes semblent avoir confondues et réunies comme du même genre, n'ont pourtant aucun rapport entre elles; car quel rapport entre la vue d'une couleur, par exemple, et l'idée de l'injuste? Pourquoi donc ces philosophes, si attentifs à démêler les défauts de rapports entre les choses, et en conséquence à assigner de la différence entre elles, n'ont-ils pas distingué la substance qui sent, et la substance qui pense,—par la même raison qu'ils ont distingué la substance pensante de la substance étendue, la pensée pure et simple n'ayant guère plus d'analogie avec la sensation qu'avec l'étendue? Ce n'est pas tout. Les sentimens qui affectent notre âme, soit purement passifs, comme la joie; soit actifs, comme le désir; n'ont aucun rapport ni aucune ressemblance entre eux, ni avec la sensation et la pensée; pourquoi donc les philosophes n'ont-ils pas aussi attribué ces sentimens à quelque nouveau principe, distingué du principe qui sent et celui qui pense?"—D'Alembert. Elem. de Philosoph., p. vii

† Dugald Stewart, indeed, contends that all effects in the universe are produced by mind: "*Power, force, energy, and causation*," says he, "are all attributes of mind, and can exist in mind only."—Vol. 1, p. 54, and vol. II., p. p. 221.

Brown, on the contrary, contends that *power, force, &c.* are nothing apart from matter, but de ipsis are matter.—Cause and Effect, p. 20 21, &c.

It is evident we have returned to the question of substance. (See chapter on Matter, and note on physical and efficient causes.)

If "*power, force, &c.*, can only be attributes of mind," matter must be presumed to be 'inanimate,' 'bruté,' in a word, *inert*; and those who thus make up their opinions *a priori*, may well contend for the distinction between mind and matter. Power (an attribute of mind) is thus added to inanimate matter, as the soul is supposed to be added to the nervous matter composing the brain of man. But of what mind is power the attribute? Dugald Stuart undoubtedly meant 'that of the Deity.' But the brain is also matter, which has its properties, powers, &c., in common with other matter. Therefore, in the living brain of man, there must exist, at the same time, the mind of God, the mind of individual man; and this brute unknown (substance) all in close connection and intimate union! Those who maintain the hypothesis of a 'vital force,' distinct from all other forces, must add that also!!

How truly this vague *substance* is at the root of the distinction made between mind and matter, the following extract will abundantly evince:

"Per substantium nihil aliud intellique possumus, quam rem quæ ita existit, ut nulla alia re indigeat ad existendum. Et quidem substantia quæ nulla plane rein-

Who, then, when contemplating an elementary substance, shall pronounce on the number of properties it may possess? Who shall foretell the revelations it will make when subjected to the arch-chemistry of nature? What dogmatist will be so bold as to assert, that oxygen, hydrogen, carbon and the other substances composing the nervous mass and the arterial blood embathing it, after combining by tertiary and quarternary unions, may not at least exist together in such a condition, as to fit the compound to become sentient? Will it be replied upon us, that this ulterior result is not matter? Granted: we do not contend that it is; we do not maintain that sensation is a secretion of the nervous substance. We say that from all parts (psychological and physiologi-

indigeat, unica tantum potest intelligi, nempe Deus, Alias vero omnes, non nisi ope concursus Dei existere posse percipimus. Atque ideo nomen substantiæ non convenit Deo et illis *univoce*, ut disi solet in scholis; hoc est, nulla ejus nominis significatio potest distincte intelligi, quæ Deo et creaturis sit communis.

“Possunt autem substantia corporea, et mens sive substantia cogitans, creata, sub hoc communi conceptu intelligi; quod sint res, quæ solo Dei concursu agent ad existendum. Verumtamen non potest substantia primum animadverti ex hoc solo, quod sit res existens, quid hoc solum per se nos non efficit; sed facile ipsam agnoscimus ex quolibet ejus attributo, per communem illum notionem, quod nihili nulla sunt attributa, nullæque proprietates aut qualitates. Ex hoc enim, quod aliquod attributum adesse precipiamus, concludimus aliquam rem existentem sive substantium qui illud tribui possit, necessariis etiam adesse.

Et quidem ex quolibet attributo substantia cognoscitur: sed una tamen est ejusque substantiæ præcipua proprietas, qua ipsius naturam essentiamque constituit, et ad quam aliæ omnes referuntur. Nempe extensis in longum, latum, est profundum substantiæ corporeæ naturam constituit; et cogitatio constituit naturam substantiæ cogitantis.” *Descartes’ Princip. Philosoph.*

The distinction marked out in the last paragraph is the fundamental one on this subject, and has merely been repeated in a thousand forms by Descartes’ successor.

The argument of Descartes is unanswerable, if the premises be admitted; that is, if it be granted that mind and matter are distinct, separate, and incompatible existences; which, in truth, is the very thing in dispute. But if it is maintained, on the other side, that mind is an *affection* of matter, as motion is; in other words, that thought or sensation is matter in a peculiar mode of existence; and in consequence developing certain phenomena, what becomes of the argument? What, if mind be an action of this (the brain) particular matter? To say, that matter is that which is extended and incompressible; and that mind is that which thinks, wills, and feels, and therefore, they must be distinct substances, is to beg the question and evade the point in dispute; since the fundamental position of the other side is, that mind (or the capability of thinking, feeling, &c.) possesses no more existence distinct and apart from matter, than motility (or the capability of motion); or to correct the phrase, and make use of an *affection* instead of a *property*, that thought and sensation exist no more apart from the thinking or sentient brain than motion from the body moving.

Verumtamen non potest substantia primum animadverti et hoc solo, quod sit res existens, quid hoc solum per se nos non afficit.” What is the meaning of this sentence, and particularly the latter part of it? It is intended, we presume, to enforce a distinction drawn between the attributes of things, and the things themselves. Gravity, for instance, it may be said, though something existing, is not a substance, but the attribute of a substance, and, therefore, it cannot affect us *per se*; that is, without the substance. So, then, a substance cannot act without its attributes, nor the attributes without the substance; which is just tantamount to making them one and the same thing. But the truth is, when we say, gravity is an attribute or property of matter, we mean merely to express our belief, that if matter be placed under certain specified circumstances, it will develop certain phenomena; and we mean, and can mean nothing more. The gravity of matter is therefore nothing apart from matter; and of course, cannot effect us *per se*.

cal) after being gathered up, examined and compared one with another. we must come to the conclusion, that sensation, thought, &c., are affections of the nervous substance; or, in other words, the *nervous substance itself* existing under certain circumstances and in certain conditions; change these conditions, alter these circumstances, and you have morbid sensations, or none at all.

"But," it will be replied, "all this is inconsistent with the acknowledged unity of the sentient being." But what is this unity? When spoken of in regard to matter, have we any other conception than that of a whole made up of similar parts; each of which geometry will prove is susceptible of division? Unity, then, strictly speaking, is an idea incompatible with that of extension. But when we regard matter with reference to its affections,* can the opposite idea (divisibility) enter into such contemplation? Can we conceive that attraction and repulsion are divisible? If a certain mass of iron tends to the earth, with a

D'Alembert seems to have perceived the illogical nature of the argument for the independent existence of mind, when he penned the following remarks: 'Qu'elle différence enfin pouvons-nous concevoir, du moins d'après les notions, que l'habitude nous a fait acquérir, entre le néant absolu et un être qui ne serait point matière? On dit, pour prévenir cette objection, que la pensée, la volonté ne sont ni longues, ni larges, ni colorés, et cependant sont quelque chose. Cela est vrai: mais le mouvement, la pesanteur, &c., ne sont non plus ni longs, ni larges, ni colorés, et cependant sont quelque chose, et en même temps appartiennent à la matière. La difficulté n'est pas de concevoir des modifications qui soient privées d'étendue, mais de concevoir que le sujet qui reçoit ces modifications ne soit pas étendu.'—*Elémens de Philosophie*, p. viii.

In short, if any one should make distinct substances of gravity, motion, &c., and endow any one of their modes with so many names; for instance, if one should say, that gravity is that which keeps the planets going round the sun; the moon round the earth; brings a stone back to the earth, when thrown into the air; produces weight in bodies, &c., the distinction drawn would be exactly equivalent to that made with regard to matter and mind. And, in fact, this is just what some philosophers, in their distinction between physical and efficient causes, have in a great measure done. For if power be, as they say, only an attribute of mind, and mind be distinct from matter, the power of gravitation must necessarily be the attribute of a substance other than matter. What substance can that be? Gravity or the Deity? The latter is undoubtedly meant; the consequences of which doctrine it is not my inclination to develop; but shall merely observe, that by the same kind of reasoning is used to show matter and mind to be distinct essences, gravity might as readily been adopted as the unknown substance of which power is the attribute. Nay, they might as well go on, and make a separate substance out of each of the general properties of matter.

We recognize matter by our sense as something that is extended, and that resists our efforts to compress it. But though there be modes of action in which matter always affects us; and though every thing we call a *force*, *power*, or *attribute* of matter must of necessity be associated with the idea of extension and resistance, (for such is implied in any use of the word 'matter,') still they are by no means the only modes in which matter affects us; for we cannot conceive of any body whatever which is merely extended and resistant. So that all the pith of the question is, whether those manifestations of activity we call mind are constantly associated with those other modes of action which produce within us the ideas of extension and resistance; for matter, fully and justly considered, carries into the reason of man all the weight which the word 'spirit' has been chosen to signify; and therefore is as truly as spiritual as mind is conceived to be.

Observation only can settle this question; for all beyond is a chaos of wild conjecture.

force equal to two pounds, can we imagine that under the same circumstances, the same mass will ever weigh less? In other words, can half of this attraction be taken from it? If it can, what becomes of it when taken away? Where does it exist? And what is its mode of existence? In vain it may be responded, that the attraction of the whole results from the combined attraction of each of its parts:—the same questions will recur upon each of its atoms. Motion, again, is another affection of matter. Now, when a body is in motion, flying with a certain velocity, can we conceive that motion to be capable of division. It may, indeed, be imparted to another substance by contact; but can we imagine the half a quarter of such motion to be taken from the moving mass, so that it may exist *per se*? In other words, can we think of motion apart from the body moving?

We cannot, then, conceive divisibility in the affections of matter any more than we can get a notion of unity out of extension. And there is nothing which can be predicated of quantity with regard to motion or attraction, that may not, with equal truth, be predicated of the same with regard to thought or sensation. Division can only be used in reference to time and space; and when we leave these subjects, we go out of the sphere of its application. To talk of dividing attraction, repulsion, motion or rest, *considered in themselves*, would be as ridiculous as to talk of half a thought or the quarter of a sensation. By changing the condition of the nervous substance, we may impair, or increase the intensity of our sensations, just as by changing the relations of bodies in space, we may diminish or enhance the intensity of attraction.*

* By *affections of matter* I mean the conditions in which substances exist in consequence of the *existence of other substances* near or remote. The moon is retained in her orbit by the influence of the earth; she exists, then, in a certain condition which she would not exist in were the earth suddenly annihilated. Such a condition, from such a cause, is here termed an 'affection.' It is plain, then, that strictly speaking, the condition in which we find a body is the mere manifestation of its affections. When two pith balls come near a Leyden jar charged with either electricity, they mutually repel each other; or, in other words, the condition in which they did exist is exchanged for another. The prior contact and the subsequent separation are the mere conditions making evident a change in the affections of the balls. This note is necessary to give a precise meaning to the context; for though motion be plainly an affection of matter; that is, matter existing in a certain condition, in consequence of the other action upon it; yet the words 'attraction' and 'expulsion' are variously used, sometimes signifying the act of approach or separation, sometimes referring to something unknown, the essential causes of the phenomena.

Affection is the result of what is called a *property*; in other words, of a susceptibility in substances to undergo the changes predicated of them. The property then, may exist, though the affection do not. A needle is attracted by the magnet; when the magnet is present, the attraction exists as an affection; when absent, as a property. But it is obvious that the mere presence or absence of the magnet, does not affect the nature of the needle; its presence only making that nature evident. The word 'property' there is merely one of convenience; and we use the two words correctly when we say that sensibility is a *property* of the nervous substance, and sensation an *affection*. The two words mean the same thing, with this difference only; 'property' refers to what *will happen*; 'affection,' to what *has happened*.

* It is averred by metaphysicians, (see Brown's Lectures, Vol. 1, p. 122,) that

If, then, mental affections be those of matter and not of an immaterial indivisible substance, (which, though admitted to exist *in* space, is yet, it is maintained, without extension,) the facts revealed by physiology are consistent; whilst they do not war with those of psychology.

It will show cause why the human mind is subject to morbid sensations, mania, idiocy, exhaustion, &c.; for if the nervous substance be altered in its constitution, we must of necessity have other results; since its relations with all other bodies are likewise changed; just as a piece of iron, in combining with sulphuric acid, takes on new relations with regard to the entire universe.

It will show why the brain (a difficultly organized mass) is subject to affections different from those of the medulla oblongata; why the last differs in its function from the nerves, &c., &c.

Why we experience so many different sensations, &c., from different causes.

Why mental manifestations so well accord with the development of the organization, both in the animal series, and in the progressive life of an individual. Why certain animals after bisection retain their sensibility. Because, if sensation be an affection of the nervous substance, a separation of this substance into parts cannot possibly destroy this affection, if each part remains the same in structure and in its relations with the nutritive fluid. Divide a mass of iron, and each portion still retains its attraction to the earth: divide a nervous mass, and (with the conditions aforementioned) each portion will retain its sensibility and powers of volition. This must of necessity be the case if sensation be nothing distinct from the nervous substance, but merely that substance itself existing in a certain condition. It explains, too, why such a phenomenon cannot occur in the higher animals; for in them, only a small portion of the nervous mass is organized so as to take on the affection of sensation. This part is intimately connected with the vascular system, and moreover, very slight causes will produce complete disorganization of its structure; hence, in such experiments on the higher animals, we cut off the nutritive fluid at the same time that we disorganize the nervous mass. If it were practicable to divide the medulla oblongata without producing disorganization therein, and at the same time to supply it with arterial blood, there can be no doubt, if we were to give any stress to analogy, that each separate part would retain an individual sensibility; i. e., a sensation would result from the usual causes.

Are not, then, considerations such as these calculated to check the forwardness of dogmatism; and to make her hesitate, ere she so roundly and positively assert that matter cannot possibly feel, think, judge and remember. What, in truth, beyond the records of observation and ex-

the states or affections of mind which we term *complex*, are absolutely *simple* and *indivisible*, as much as the feelings or affections of mind which we term *simple*." * * * * * "Our notion of *four* or *eight* is as much *one* affection of mind, as our notion of a *simple* unit." Now, if instead of the "*simple* indivisible substance" called *mind*, we make use, in the quotation above, of the words, *nervous substance*, will not the truth remain unaltered? Are not, in reality, all affections of this material substance just as *simple* and *indivisible*, as those of the supposed immaterial one?

periment, do we know of matter, of which so much is asserted to be known? We witness its mutations as they occur before us; and we find that many of these are the revelations of truth before unknown. But who shall give the *ultima ratio* of any of them? Who shall set them limits? In every science, we reach at a few steps some definite point where all is equally unanswerable, equally wonderful; and it was doubtless the feeling of this truth, that induced the Grecian sage to declare, "He only knew he knew nothing." A stone falls to the earth—why? none can answer—it is an ultimate fact. Certain elements of matter combining together and existing under peculiar circumstances become sentient; a fact just as incomprehensible, and just as *ultimate* as the other.

To recur, then, to the point we started from: there is nothing in the nature of sensation and the other mental affections, at war with the inferences derived from investigation in comparative anatomy and physiology. There is nothing that militates against the supposition, that the olfactory, optic, and acoustic nerves have sensoria peculiar to themselves; the medulla oblongata remaining the general sensorium of the other nerves. But how these parts are thus capable of taking on such affections; and why they differ in this respect from the rest of the nervous system, we know not. We see, indeed, a diversity in the organization of these parts; but the difference lies in the gross appearances, and teaches nothing. Between the substances, we find, their structure, and the mysterious affections they are capable of, there exists no connection apparent to us. For all that we know a priori to the contrary, the liver, the kidneys, or any other organs of the body, might perform the same functions as the brain itself.

We have already spoken of the continuance of sensation after the removal of the objects of impression. As the nervous matter in the periphery, in the nerve, and sensoria is connected throughout, it follows, that the molecular actions on which the phenomenon depends may occur in either of them. The pain felt after amputation and referred to the lost member must result from a condition of either the nerve itself, or the medulla oblongata. When we see the face and hear the voice of a friend in our dreams, not as remembrances, but as actual sensations, it is highly probable that the affections are limited to the optic and acoustic sensoria.* The following letter from Sir I. Newton relates to

*The following extract is of much interest. "The experiments made by M Audouin and me, with a view to solve the principal problems which may be proposed on this subject, have confirmed the inductions to which we had been led by views arrived at *a priori* wholly from anatomical researches, of which the preceding may be regarded as the summary. Thus: 1st, The nervous is the system which entirely presides over the sensations and motions.

2d. The nervous cords are merely the organs of the transmission of the sensations and of volition, and it is in the ganglions that the power of perceiving the former and of producing the latter resides. Every organ separated from its nervous centre speedily loses all motion and sensation.

3d. The whole of the ganglions have analogous properties; the faculty of determining motions and of receiving sensations exists in each of the organs; and the action of each is by so much the more independent as its development is more isolated. When the ganglionic chain is nearly uniform through its whole length, it may be divided without the action of the apparatus being destroyed in either portion thus isolated; always understood, that both are of considerable size

this subject. We extract it from Brewster's Letters on Natural Magic, together with his prefatory remarks: "Mr. Boyle mentions an individual who continued for years to see the spectre of the sun when he looked upon bright objects. This fact appeared to Locke so interesting and inexplicable, that he consulted Sir Isaac Newton respecting its cause, and drew from him the following interesting account of a similar effect upon himself. 'The observations you mention in Mr. Boyle's book of colors, I once made upon myself, with the hazard of my eyes.

The manner was this: I looked a very little while upon the sun in the looking-glass with my right eye, and then turned my eyes into a dark corner of my chamber and winked, to observe the impression made, and the circle which encompassed it, and how they decayed by degrees, and at last vanished. This I repeated a second and third time. At the third time, when the phantasm of light and colors about it were almost vanished intending my fancy upon them to see their last appearance, found, to my amazement, that they began to return, and by little and little to become as lively and vivid as when I had newly looked upon the sun. But when I ceased to intend my fancy upon them they vanished again. After this, I found, that as often as I went into the dark, and intended my mind upon them, as when a man looks earnestly to see anything which is difficult to be seen, I could make the phantasm return without looking any more upon the sun, and the oftener I made it return, the more easily I would make it return again. And at length, by repeating this

because when a very small portion only is isolated from the rest of the system, this appears too weak, as it were, to continue its functions, so that sensibility and contractility are alike speedily lost. But when one portion of the ganglionic chain has attained a development very superior to that of the rest, its action becomes essential to the integrity of the functions of the whole.

"It must not be imagined, however, from this, that sensibility and the faculty of exciting muscular contractions are ever completely concentrated in the cephalic ganglions; and it seems to us calculated to convey a very inaccurate idea of the nature and functions of these ganglions to speak of them under the name of *brain*, as the generality of writers have been led to do, reduced by certain inconclusive analogies in point of form and position."—*Milne Edwards, Cyclop. of Anat. & Physiology, Art. Crustacea.*

The following is equally so: "There are also insects and worms, which, when cut into two or several pieces, form immediately two or several individuals, having each a system of sensation and volition. It is only in the animals which are the most perfect, and which approach nearest to man, that the connection of the different parts of the nervous system, and particularly the presence of its central parts, is absolutely necessary to the existence of its functions.

The necessity of this connection increases in proportion to the magnitude of the common trunk, compared with its ramifications. The more equally the medullary mass is distributed, the less essential is the existence of central parts; animals which have this sensitive substance diffused over the whole body, as is the case in *polyps*, may be divided and subdivided to any degree of minuteness, yet each fragment will be endowed with a particular *self-existence*, and become a separate and perfect individual of its kind.

From these observations, it may be conjectured, that the parts of the nervous system are homogeneous and susceptible of a certain number of similar functions in the same manner as the fragments broken from a large magnet become each a smaller magnet, having its poles and motion; and that in the higher orders of animals, the connexion of parts is rendered necessary only by accessory circumstances and the complication of the functions they have to perform, which is also the reason that each part answers a particular use."—*Cuvier Anat. Comp. Tom. 7.*

without looking any more upon the sun, I made such an impression on my eye, that if I looked upon the clouds, or a book, or any bright object, I saw upon it a round bright spot of light like the sun, and, which is still stranger, though I looked upon the sun with my right eye only, and not with my left, yet my fancy began to make an impression upon my left eye as well as on my right. For if I shut my right eye, and looked upon a book or the clouds with my left eye, I could see the spectrum of the sun almost as plain with my right eye, if I did but intend my fancy a little while upon it; for at first, if I shut my right eye, and looked with my left, the spectrum of the sun did not appear till I intended my fancy upon it; but by repeating, this appeared every time more easily. And now in a few hours I had brought my eyes to such a pass, that I could look upon no bright object with either eye, but I saw the sun before me, so that I durst neither write nor read; but to recover the use of my eyes, shut myself up in my chamber, made dark, for three days together, and used all means in my power to direct my imagination from the sun. For if I thought upon him, I presently saw his picture, though I was in the dark. But by keeping in the dark, and employing my mind about other things, I began in three or four days to have more use of my eyes again; and by forbearing to look upon bright objects, recovered them pretty well; though not so well but that, for some months after, the spectrums of the sun began to return as often as I began to meditate upon the phenomena, even though I lay in bed at midnight with my curtains drawn. But now I have been very well for many years, though I am apt to think, if I durst venture my eyes, I could still make the phantasm return by the power of my fancy. This story I tell you, to let you understand, that in the observation related by Mr. Boyle, the man's fancy probably concurred with the impression made by the sun's light to produce that phantasm of the sun which he constantly saw in bright objects."

In this experiment of Sir I. Newton, the whole nervous matter of the right optic nerve (including the sensorium and retina) must have been affected to a degree approaching disorganization. Hence, by virtue of the law of radiation, the affection of the left sensorium. The letter, besides this, mentions facts on two other points, which are yet to be taken up. First, that marvellous disposition in the nervous system, to a repetition of the same affections; and secondly, the reverse action of the brain on the sensoria.

Location of Sensation.—The impression made on the nervous substance diffused in the organs, must be transmitted to the sensorium ere sensation can exist. But we do not feel our sensations in the encephalon; we refer them, in every instance, to the point of impression; their locality is *there*, and it is impossible to believe otherwise. It cannot be admitted that the affection of the nervous substance at the periphery constitutes the sensation; for such a proposition is opposed by the most direct experiments.

The mystery of this phenomenon is certainly not to be solved by any information previously obtained from the special senses. As to hearing, smell, and taste, they plainly can have no agency in the matter. As to sight, persons born blind possess this knowledge in as great perfection

as others. The sense of touch, then, only remains; and an explanation has been attempted by an established association in the sensations derived from this sense and the rest of the body. We can exercise, it is said, our sense of touch over the whole body; and by this means we become acquainted with the locality of all the sensations to which the surface is subject; as, that when the nerves of any part become again affected, no matter what the cause, we refer the sensation to the same seat. This reasoning is obviously loose and vague. Whence comes the local knowledge of the sense of touch itself? Where are situated those first sensations with which the touch becomes associated? Such an explanation is, assuredly, only postponing the difficulty. It is erroneous, too, to confound this phenomenon with an ideal reference, or, in the words of psychologists, a conception. The affection exists as a sensation in the organs, the nerves of which have changed their condition, and not in the imagination. Besides these objections, there are others still more conclusive. We experience sensations in parts where the sense of touch can never be exercised. A pain in the stomach, kidneys, lungs, or bladder has a location as accurate as that caused by an impression on the outward surface. The location of sensation, then, if not an ultimate, is, at least, an inexplicable phenomenon.

As these facts are inexplicable, so, likewise, are those cases in which we experience sensation, not in the organs affected, but in some other. Such, for example, as itching of the nose from irritation in the intestinal canal, the numbness felt in the testicle during the passage of a calculus along the ureter, pain in the knee in inflammation of the hip joint, &c., &c. The pain felt in the little finger when we strike the ulnar nerve against a hard body, and the tingling felt in the foot after the compression of the sciatic, are also examples of sensations existing where, in all probability, the nervous substance is not affected.

But that which makes this subject more wonderful and mysterious is, the fact that sensations may be referred to points in space, where no organs really exist. In spite of all conviction to the contrary, the patient will fix the pain he is suffering upon the amputated limb. The illusion he is fully convinced of, but, for all that, the sensation exists beyond the stump where the limb *was*, but *is* no longer. In certain states of the body, as in fever, in hypochondria, hysteria, monomania, etc., we sometimes experience morbid sensation of a peculiar kind. The body seems to expand to an immense size. We exist with all the sensations and modifications of feelings that we may imagine pertain to a giant. Suddenly, it is reversed, and we contract into the smallest possible dimensions. Of facts of this kind, the records of medicine are full. Now, in these instances, these sensations, as virtually as any we experience in health, exist in portions of space where, most assuredly, the body does not. And it may be necessary to observe, that these affections are morbid *sensations*, not disease of the imagination or understanding, with which they are often confounded; for in many cases, the patient preserves these faculties unimpaired, and by reference to his memory of past sensations, and a knowledge of the causes which can induce the illusions under which he labors, he is made perfectly cognizant of their nature. But this knowledge by no means lessens the difficulty of

the case; for the location of sensation in space where it does not exist is undiminished by it, and exists in spite of it. To say that they are phenomena of disease, and that nothing can thence be inferred, is to mistake altogether the nature of the subject. Disease is but physiology under altered circumstances. A change has occurred in the nervous system, no doubt. But this is merely stating the circumstances of the case, not explaining it. In that state of the body termed health, we give a certain location to each particular sensation, where, most certainly, if we are to rely on experimental facts, the substance affected, and essential to the phenomenon, does not exist. In many diseases the same thing occurs, and we term them morbid and illusive, because they do not agree with those which we are accustomed to; yet the phenomena in both cases are of the same kind, and equally inexplicable.

The brain, cerebellum, medulla oblongata, nerves, and, indeed, all parts of the nervous system, are double, or composed of symmetrical halves; yet some of our sensations are said to be single.

In examining this subject, it is requisite to be precise in what we mean by a single sensation. An example may, perhaps, have more clearness than a definition. When a person speaks to us we hear only *one* voice, and we see only *one* object; yet is each organ of sense double. The difficulty, then, is, to explain how it is that we do *not* have two distinct sensations.

Dr. Brown has attempted an explication of the phenomenon by saying that the sense of sight is strongly associated with the sense of touch, and as we know from this latter sense that the object is single, so we must necessarily refer the cause of vision to a single object.* But a very simple experiment overthrows all this. If we press on the ball of one eye, we will see objects double in spite of the sense of touch, and all the associations connected with it.

It will be found, on examination, that this question is confined to the senses of sight and hearing; for it is plain, that if we touch a table or any other object with one hand only, we have not the *same* sensation as when we apply both hands. If we confine a sapid substance to one side of the tongue, we have not the same sensations we have when both sides of the tongue are affected. If we close one nostril, and smell a rose, our sensations are different from those we experience when we make use of both nostrils. In each of these cases, then, the sensation is really double when the object of impression comes in contact with both organs. Do the senses of sight and hearing differ from the other senses in this respect? Most certainly they do not. We confine our remarks to the sense of sight; analogous reasoning will apply to that of hearing.

Close one eye and regard a distant object—it will appear dim and indistinct. Unclose it and regard the object with both eyes—the sensation is evidently changed. The outlines grow more distinct and the colors more vivid. Vision, then, is really as double as any other sensation.

It is a law of vision that the object viewed is not seen in the direction of all the rays, but only in the direction of those which fall perpen-

* Brown's Lectures, vol. 1. p. 175.

diicularly on the retina.* Now, as the eye-ball is nearly a perfect sphere, lines drawn perpendicular to the retina must need meet at some common point; i. e., at the centre of the sphere. This point is called the *centre of visible direction*. Hence it is, that if we close one eye and press upon the other, everything in the field of vision is put in consensual motion; for, by doing so, we put in motion the centre of visible direction. The question then comes up: Why is it that the visible direction of each portion of the retina is in a line drawn from it to the centre? It is obvious that we have returned to the subject last discussed, viz: the location of sensations; which, as we have shown, is inexplicable. †

But, we can now see, that if these lines of visible direction be extended from both eyes, so that they meet together, we shall have vision of only one object, though, in reality, there co-exists two sensations. We refer to the same point in space, the sensation of both eyes; they must, therefore, coincide and blend with each other.

The same explanation applies to a fact mentioned by Majendie; that if we look through differently colored glasses at an image of the sun received through a window shutter on a plane surface, we shall see the image of a dirty white, provided the eyes be equally strong. But if one eye be stronger than the other, we shall see the image of the same color of the glass before the stronger eye. ‡ In the first instance, there seems to be a blending of the colors, just as if we should artificially place them one over the other on the object itself.

It should follow from this explanation, that if we alter, ever so little, the centre of visible direction, the compound sensation ought to be decomposed, and we should have two distinct images of the same object. This is accomplished when, regarding an object with both eyes, we press lightly on one of them.

Sensation and Perception.—It may be necessary here to take notice of a theory which attempts to establish a distinction between sensation and perception. It seems to us that such a distinction is not founded in the nature of things, but on the contrary, that all the perplexity besetting this subject is principally owing to an illogical use of language.

When an impression made on the periphery is transmitted to the sensorium, a molecular action necessarily accompanies the transmission—indeed, constitutes it; and we become conscious of a certain feeling. To this species of affections physiologists apply the word ‘sensation,’ from the latin, ‘*sentio*,’ I feel.

But the word ‘perception,’ in the common use of language, is applied to almost all the affections of mind. For instance, it is used in reference to this very affection of which we are now treating, and it is common to hear the phrase, ‘I perceive a sensation.’ It is applied to the mem-

* See Brewster’s Optics, p. 215; and afterwards Duglison’s Physiology, vol. 1 p. 186, first edition. See also, 2d Edit. of the same work, vol. 1, p. 202, where the opinion expressed in the first is, apparently, retracted.

† Hence the futility of attempting to explain why we see objects in their natural position, although the image of the retina is reversed.

‡ See Note D.

§ Puges Element, p. 39.

ory: "We perceive the features of a friend whom we have in remembrance." It is employed again when we speak in regard to the reasoning faculties: "We perceive the truth or falsehood of a proposition;" "We perceive a difference or similitude in things, when we make a comparison between them," and so on. It must be obvious that in all these instances 'perception' merely means that we have a consciousness of certain feelings; and that it differs from 'sensation,' in being more general in its application. But the theory of which we now speak brings forth the proposition, that there occur, in every sensation, a separate and posterior affection, not of the sensorium, but of the mind; without which there could exist no sensation. This affection of the mind, say they, constitutes our 'perception of the sensation.' In vain would the nervous substance undergo a molecular change, did not this posterior affection of the mind take place.

An examination of facts gives no strong support to this hypothesis. If the atomic motion commencing in the nervous substance at the periphery is transmitted to the sensorium, a sensation occurs, not as a *consequence*, but as an *accompaniment* of the molecular movement. It is true, we can imagine a change to occur among the molecules of matter, without sensation being a necessary accompaniment; but what reason have we to believe that the nervous substance in a living being can undergo this molecular change, without the co-existence of sensation? To assert dogmatically the necessity of such a thing is to prejudge a mooted question in philosophy; for we have seen, that in all probability the molecular change and the co-existing sensation are one and the same thing; in other words, that sensation is the nervous substance itself of the sensoria, existing in peculiar conditions. In truth, when we refer to what passes within us, we have no consciousness of any such posterior affection as that imagined. The very existence of a sensation supposes consciousness of it. It is folly to talk of sensations of which we are not conscious: no such thing exists, or can exist. To have a sensation, and to have a perception of it, are one and the same thing.*

These remarks lead us to offer others concerning an absurdity which has crept into physiology. We read in authors of imperceptible sensations, or, in other words, of sensations which we are not conscious of. They generally explain their paradox by some such illustration as this: A man is sitting in his study, intent upon some speculation and his mind is absorbed by a subject of the highest interest, when the clock on the mantel piece strikes the hour. If one should ask him, immediately after

* Another distinction between perception and sensation has been proposed by Dr. Reid. "When," says he, "I smell a rose, there is in this operation both sensation and perception. The agreeable odor I feel, considered by itself, without relation to any external object, is merely a sensation. It affects the mind in a certain way; and this affection of the mind may be conceived without a thought of the rose or any other object." * * * * * "Observing," he continues, "that the agreeable sensation is raised when the rose is near, and ceases when it is removed, I am led by my nature, to conclude some quality to be in the rose, which is the cause of this sensation. This quality in the rose is the object perceived, and that act of my mind, by which I have the conviction and belief of this quality, is what in this case I call a perception." *On the Intellectual Powers, Essay II, c. 16.*

For an analysis of this doctrine, see Brown's Lectures, Lect. xxvii.

the sounds have died away, if he heard the clock, it is probable he will answer, "No." And yet, say they, the vibration of the atmosphere must have reached the tympanum of the ear, and of consequence, affected the auditory nerve. He must then have heard the clock strike, yet was he not conscious of so doing.

There is fallacy in all this, and fallacy from two sources. Our consciousness of the past depends on memory, and our remembrance of any thing depends greatly on the attention we bestow upon it. But the student having his attention engaged elsewhere, is unable to remember the sensation, though he may have felt it at the time. It is plain, then, that the non-remembrance of the event proves nothing. In the second place there is no proof that those actions or molecular movements essential to sensation did really ever take place. It has been our employment all along to show that there exist conditions of the nervous substance incompatible with sensation. It is highly probable that such is the case here, at least, in many instances. Deep thought, intense reflection, violent emotions are all concomitant with certain conditions of the nervous substance, which, while they endure, cannot take on those other states requisite and essential to sensation.

[To be continued.]

II.—*An enquiry respecting the distinct and independent vitality of human blood.* By WM. P. HORT, M. D., of New Orleans.

Dr. Bennett Dowler, well known at home and abroad for his able remarks on physiological facts and principles, thus concludes a very interesting article published in the last November number of this Journal :

"On the whole, it may be safely concluded, that voluntary motion is neither directly communicated from, nor regulated by the brain, or the cerebellum; that the muscles in connection with the spinal marrow perform voluntary motions for hours after being separated from the brain; that these motions are not entirely independent of the brain, but may take place, though imperfectly, after the destruction of the cord itself; that the trunk, as well as the brain, thinks, feels, and wills or displays psychological phenomena; that the *sensorium* is not restricted to a single point, but is diffused, though unequally, or in a diminished degree, in the periphery of the body; and that actions which take place after decapitation, as above described, are in absolute contrast to *reflex actions*, being sensational, consensual, voluntary, and in other respects dissimilar."

Without commenting on the above, I shall simply observe that I have the fullest confidence in all the statements made by Dr. Dowler in connection with experiments on alligators, &c., and consider his conclusions as both logical and satisfactory; and moreover, that the attestations of other gentlemen present on the several occasions cited, add nothing to my conviction of the strict truth of the experiments as related by him.

How far, however, the application of such experiments and facts

may be made to the animal creation generally, I am not prepared to say.

The sensorial and animal life, which in the alligator appear to be one and the same thing, are by no means so intimately associated in man, in whom *sensorial* death often precedes *animal* death for several hours.

If the distinct and independent vitality of the blood can be established, it will be a fact in physiology sustaining, by an interesting analogy, the *diffused sensorium* in the alligator.

Our knowledge in natural science would probably exceed but little that of the ancients, had not the construction and advantages of the telescope and microscope been discovered at comparatively modern dates. The invention of the former has been attributed by different writers to J. B. Porta, Jansen, and Galileo, near about the year 1590. The *principle* of the microscope was known to the ancients; for Seneca observes, "Letters, though minute and obscure, appear larger and clearer through a hollow glass ball filled with water;" but the practical and efficient application of the principle is generally attributed to Debrell, a Dutchman, about thirty years after the invention of the telescope.

Seneca and Pliny both affirm that the Chaldeans believed in the movements of the earth round the sun.* And the ancient Persians (on the authority of Chardin) are said to have been aware of the circulation of the blood in some animals. And we know not yet what interesting facts in relation to the scientific knowledge of the nations who existed thousands of years prior to the origin of the Hebrew race, may be developed by future explorations in the archeology of Egypt, and persevering researches for the records and documents, of which travelers have brought us intelligence, as existing in the central parts of Asia, but which are as yet unknown to modern civilization and science.

It is unnecessary to trace, step by step, the improvements of the important instruments just alluded to; they were slow and gradual. The telescope of Herschel was once considered almost the perfection of that instrument; yet deeply as he penetrated into the depths of space, Lord Rosse, has greatly exceeded him by the construction of a telescope of colossal dimensions. The fabulous milky way is no longer nebulous matter or fire mist,† forming the foundation of plausible theories and speculations; for it has been demonstrated to consist of millions of stars, each one of which is probably the sun and centre of a planetary system.

And human ingenuity aided by wealth may yet produce instruments as far surpassing that of Lord Rosse, as does his telescope surpass the first rude and imperfect invention.

So with the microscope, just in proportion as the skill of man has succeeded in bringing lenses nearer to perfection, so has the sphere of vision being enlarged, and man been able to appreciate more and more the wonders of creation in their almost infinitude of minutiae, and to add largely to his stores of knowledge. And the same skilful workman, under some momentary inspiration of genius, may succeed in making a much more powerful lens than he has ever made before, and perhaps

* St. Pierre, volume 2, page 380.

† Vide Laplace *Mechanique Celeste* & *Vestiges of Creation*, by Chambers.

may ever make again. The individual having the most perfect lens will possess the greatest power of vision, and may be able to discern much which is not visible to another with a lens of less power.¹

Hence the danger of denying a fact recognised and affirmed in experiments in physiological science, which may be the result of patient and protracted observations with a more efficient instrument.

The amount of intellect, or in other words, the capacity to acquire the great truths of nature, has probably been about the same throughout all ages of the world; the only essential difference being, in the invention by skilful mechanics of means and appliances, of which the genius and industry of men with a different organization of brain may avail themselves in the acquisition of knowledge. Some have been thus favored, while with others, mind has been left in its unassisted majesty and strength to grapple hopelessly with the deep mysteries of natural science.

Moses prohibited the Hebrews from eating blood under penalty of death, assigning as a cause: "For the life of the flesh is in the blood."

This ancient law is not quoted or urged here as an argument, yet it would be a singular and interesting circumstance, if the fact affirmed should be sustained by researches in physiology with the aid of powerful lenses.

An undue loss of blood may result in death without any apparent lesion in the complicated machinery of the body. Death may also be produced by a great accumulation of blood terminating in congestion, and fatal pressure on a vital organ, by suspending therein, to a point incompatible with life, the necessary motions or actions. In fact, the importance of the blood as intimately connected with vitality; as influencing diseases, by accelerating or retarding its pulsations; or, by alteration and deterioration of its qualities, or by a disturbed equilibrium, must have attracted the peculiar attention of medical men at a very early period,

As instrumental in the formation and progress of disease, the blood has no doubt always attracted the attention of the physician; but in ancient times it was never investigated in a strictly *physiological* point of view as indicated by the pulse.

Haller, Harvey and their cotemporaries must be considered the pioneers in this department of medical science. Malpighi appears to be the first who applied the microscope to the examination of the blood. By applying the instrument to the web of a frog's foot, or other transparent membranes, he demonstrated to the eye the difference in the motions of arterial and venous blood; the former giving the idea of successive waves or impulses, and the latter of a continuous stream. Baglivi, Blumenbach, Boerhaave, Vesalius and others prosecuted their researches into the nature and functions of blood, without, however, going beyond the mode of its circulation throughout the system.

Hunter and others advanced still further in their observations on the coagulation of blood, and its separation into crassamentum and serum. I can merely allude to this gradual progress in the investigation of the properties of the blood, and pass on to observe that Hunter appears to be the first who suggested the hypothesis of the life of the blood. He

not only supposed that blood gives life to the animal, by supplying all parts with what is necessary for its preservation, and exercise of peculiar functions, but that it is itself a *living organized body*, in which the vitality of the whole system specially resides.

The red particles of the blood were first examined by Malpighi, and subsequently by Levenhock soon after the discovery of the microscope. They described them as *spherical* bodies floating in serum, and imparting to blood its red color. The idea of *globules* in the blood seems, then, to have originated with them.

Hewson devoted much attention to the blood, particularly to its chemical properties.

He also examined the red particles with the microscope, and he elaborately describes these bodies as hollow vesicles, containing a solid body in their centre. He doubtless used the best lenses then manufactured; and as we must suppose the best at that time to have been inferior in power to those *now* made, his description is tolerably accurate. He described what he saw, but there was much that he did not see, his lenses not possessing sufficient magnifying and defining power.

I am aware that an objection is often urged against these interesting examinations, on the ground of optical illusion. But I presume that this has been sufficiently guarded against: first, by frequent and careful repetition of the experiments; also, by the concurring observation of various persons; and again, by the corroboration of examiners at other and perhaps remote points and times with different lenses.

The Abbe Torre's idea of the red particles was, that they were rings; while Munroe compared them to flattened bodies in the shape of coins, with a dark spot in the centre. Dr. Young's observations resulted in nearly the same opinion as that expressed by Hewson. He describes the particles of the blood of the *skate* as being composed of an external envelop, containing a central nucleus, the two bodies having but little adherence to each other, and appearing to differ much in nature and consistence. Dr. Young also examined the globules of human blood, and described them as flattened, with a depression in the centre.

From the authorities quoted, it appears that two important questions had become very prominent. I mean the vitality of the blood, and the existence in the fluid of globules, differently described, (it must be admitted,) according to the power of the lenses used by the observers. We find various opinions as to the size of the red particles; according to Levenhock, it differs in different animals. Haller estimated the diameter of these globules at about the five-hundredth of an inch. Dr. Young and others agreed substantially in this estimate. According to the researches of Bauer, the globules of the blood are considerably larger, as he represents them to be of the diameter of two-hundredths of an inch. Other writers are of opinion that there is very little variation in the size of the globules in different animals.

In the American Encyclopedia, vol. 2, p. 138, we find the same views, as to the existence of globules and vitality of blood, clearly sustained. Aided by glasses of a strong power, one may observe, in examining the blood of the living animal, or in blood which is newly

drawn, that it consists, especially the *cruor*, of little globular bubbles, the globules of the blood, as they are called, the diameter of which amounts to about the three hundredth part of a line. In blood that has been drawn some time, although this time may have been very short, they are not to be discovered. *They are the effect of the life that pervades the blood.*" (*Italicised by writer.*)

It is fair to presume that all these various writers have accurately described what they saw, which was, no doubt, corroborated by other witnesses; to this I have before alluded, and let it be remembered that lenses vary so much in power, that all the differences in these descriptions can easily be accounted for, without the main facts being invalidated.

In the preface* of Simon's able work on the Chemistry of Man, (page 8,) we read; "My views regarding the metamorphosis of the blood, and its relation to nutrition and animal heat, were first communicated at Erlangen, in the autumn of 1840, to the medical and chemical section of the Associated Naturalists; and my subsequent researches into the chemical constitution of the blood and urine confirm my belief in their general accuracy. These views may be summed up in the following terms: The blood is subject to a continuous metamorphosis, which may be regarded as the impression of its vitality. * * * * Urea, bielin, and carbonic acid are either not products of the metamorphosis of the blood during the act of nutrition in the peripheral system, or, at most, they are only in part formed by it. They must be regarded as products of the vital energy of the blood corpuscles, which doubtless possess the same power of attracting nutriment, and of throwing off decomposed products, as other living cells."

I am tempted to make further quotations from Simon in relation to the subject under consideration. "If the blood be examined with a microscope, (either in a transparent living part, or immediately after its removal from the body, it will be seen to consist of a great number of yellow corpuscles, swimming in a colorless fluid. In the higher animals, the form of these corpuscles is either circular or elliptic, and invariably flattened. Under a magnifying power of three hundred diameters, he describes the form of the globules of the blood, in man and the mammalia, as being nearly circular; in the blood of birds, somewhat oval; and in reptiles, an elongated oval form. According to Muller, the greatest degree of flattening is found in reptiles, amphibia, and fishes. Thus, on his authority, in frogs, the thickness does not measure more than one eighth to one tenth of the long diameter, and in man, about one-fourth or one-fifth of the transverse diameter.

In addition to the blood-corpuscles, lymph, chyle, and sometimes oil-globules are present. The first two are round, and of a finely granular appearance, and about the size of blood corpuscles, from which they may be distinguished by their want of color, their more perfect sphericity, and their granular appearance. These distinctions are sufficient to prevent them from being mistaken for blood-globules. Globules of oil may be immediately recognized by their well defined dark edge,

*Written by the Author of the work.

and by their great refractive power. They do not rotate, and are not granular, but perfectly transparent. The size of blood corpuscles varies in different animals. In man, according to Wagner, the diameter varies from 0004 to 0002 of a French inch ; according to Muller, from 00035 to 00023 ; and according to Schultz, from 00036 to 00031."

Many other interesting passages follow, showing the variation in the size of globules in the mammalia, the ruminantia, and the carnivora.

Any further remarks on this part of the subject would be foreign to the object of this article. All the authors quoted (and nearly thrice as many are omitted) appear to be unanimous as to the existence of distinct and well defined globules in the blood ; and amongst them there are some of the most distinguished, who affirm the vitality of the blood ; which position they sustain with plausible and cogent arguments.

Schultz has been already quoted as to the size of the globules in the blood. On the subject of their vitality, we will see what he has to say. On adding water to the globules of blood, they swell and gradually become imperceptible under the microscopic lens. Chemical agents, such as solutions of sugar, or common table salt, or nitrate of potash, or muriate of ammonia, will restore them to their original form. Simon informs us (page 95) that Schultz explains this phenomenon by the supposition that the capsule of the blood-corpuscle is an organic structure, which is expanded or relaxed by water, but stimulated to contraction by the above solutions.

After speaking of the different appearances of the globules, which no doubt depends on the health of the individual, since the globules diminish or increase in number, and modify their forms, as the general sum of vitality in the system is depressed or exalted, Simon goes on to observe : "One of the most peculiar of these forms is that in which the edge of the blood-corpuscle appears as if it were studded with minute pearls."

In Andral's essay on blood in diseases, he remarks : "The blood of plethoric persons differs from ordinary blood, in the greater quantity of globules, and the much less quantity of water that it contains." Then it follows that the blood, in his opinion, in its normal condition, has a given, although smaller quantity of globules.

"The individuals whose blood contains an excess of globules are subject to some peculiar symptoms, of which no one has, perhaps, to the present time, given a very satisfactory explanation : thus, the vertigo, the dizziness, the *timitus aurium*, the head ache they experience have been accounted for by congestions of blood towards the brain ; but these congestions have never been, in like conditions, anatomically proved, and the mere passage of an excessive quantity of globules through the vessels of the brain, appears to me a fact sufficient to account for them ; but a singular circumstance if it happens, on the contrary, that too small a number of globules transverse these same vessels, analogous symptoms will still present themselves, so that a quantity of globules, either too high or too low, disturbs in the same way certain cerebral acts."

While, in the foregoing remarks, Andral speaks positively of the existence of globules in the blood, he does not allude to the vitality of the globules.

Hunefeld, Schultz, Muller, and Simon have all made experiments on the globules of the blood with various chemical agents; different results were observed. In some cases the globules became indistinct; in others, they totally disappeared; and again, all disappeared except the nucleus. From the extreme delicacy of such a minute microscopic object as a globule of blood, we would anticipate the destructive results stated. Such experiments, however, do not in any way affect the question of the vitality of the globules. I have, therefore, barely alluded to them.

Raspail describes the globules of human blood as being flat and circular. Examined with his microscope, at the University of Louisiana, on the 20th December, 1849, the field of vision appeared to be occupied by a small number of globules in close contact. The blood used on the occasion was taken from the finger of Professor Riddell, who had got together some five or six different microscopes, well adjusted by him, which enabled us to make interesting observations and comparisons. In this case the globules did not appear to be flat, as described by Raspail, but, individually, presented a surface somewhat convex. This, however, was, perhaps, an optical illusion, as no doubt Raspail did not affirm the fact of the globules being flat, (applaties,) until after repeated observations.* He gives the diameter of the globules in various animals, assigning the greatest to the salamander and frog. He coincides with other writers, that the form of them in birds, oviparous quadrupeds, and fish, is elliptical, the diameter varying from 1-00 to 1-150, and even 1-200 millemetres; while in the frog it is 1-40, and in the salamander 1-30. He also speaks of the motions of the globules, which he thinks are excited by currents in the fluids, and, therefore, purely meechanical. It is very difficult to conceive of the influence of currents in the fluids having any effect on the mere fraction of a single drop of blood, which is placed between two plates of glass, and of course removed from the body where the currents are operating.

In plate IV, of a description of blood by Drs. Griffith, Rees, and Markwick, there is a representation of colored corpuscles as ordinarily seen. They remark that when in the act of turning over, a lateral view represents them as colorless. After treating them with acetic acid, they state that nuclei appeared. (1786.) There is one thing worthy of remark here. The *motion* of the globules is admitted, and the description of that motion—"turning over"—precludes the idea of purely meechanical agencies.

There is nothing in their plates to be compared to Raspail's; and it will be seen that Raspail's microscope, superior to all others, as it was at one time believed to be, is far inferior to a microscope improved by one of Spencer's lenses. This is in the possession of Professor Riddell, who ordered it to be made expressly for himself, without regard to cost.

It may be well to observe that there is no difficulty in procuring

* See figure number one on the last page of this article.

lenses of sufficient magnifying power. The great desideratum is to have them so fashioned that the object magnified may be clearly and distinctly *defined*. Herein consists the great advantage of the Spencer lens. Further, in the use of lenses, there are modifying causes as to results : 1st, The state of the weather ; it may be a clear or cloudy day ; 2dly, The condition of the health of the observer ; 3dly, The magnifying power of the lens ; 4thly, Its power of clear definition ; and 5thly, the power of vision, which varies much in different individuals.

We see, then, how easy it is to account for variations in the description of some particular object. It may, however, be remarked that nearly all observers and writers, as before observed, agree as to the main facts.

After having examined human venous blood with Raspail's microscope, on the 20th December, 1849, we proceeded to examine the same with Spencer's lens.

We noticed individual globules larger than the whole field of vision of Raspail's microscope. (See figures 2, 3, 4.) The globules were numerous and well defined ; in form circular and flattened ; some were merely circular, without our being able to discern any thing within the circle, as in figure 3 ; others had apparently minute globules on the outside of the circle ; and in other instances they were seen on the outside and inside of the circle in the same globule, [fig. 2,] those on the outside corresponding to Simon's description, "as if the edge of the globule was studded with minute pearls." We also observed globules containing many smaller globules within themselves, without any to be seen on the outside of the circle. [Fig. 4.] Besides these large globules, there were numerous small ones of various sizes, which it is inferred had been detached from the larger globules. [Fig. 5.] The number of small globules contained in the large globules was estimated to vary from ten to fifty. Motion was distinctly perceived by several observers ; the tendency was not in a direct line, but inclined to be curvilinear. A globule would move a short distance, take up a new position, and then stop ; again, it would start and assume another position, as if dissatisfied with the former.

On the 6th of January, 1850, through the kind invitation of Professor Riddell to visit him at Carrollton, I had the opportunity of repeating the examination of blood with the Spencer lens. Venous blood was taken from the back of my middle finger of the right hand. The apparatus was carefully adjusted by Prof. R. An excellent light was thrown on the field of vision by the rays emanating from a candle, placed at some distance, passing through a large double convex lens. The globules were very abundant and distinct, confirming, satisfactorily, the observations made on the blood examined in the University. In the first experiments, the piece of isinglass was probably pressed down too much on the portion of the blood examined, so as to impede considerably the motions of the globules ; and when two plates of glass are used, the motions may be altogether prevented. On this last occasion, however, the piece of isinglass was placed as lightly as possible on the blood : this, I think, accounts for the remarkable difference in the motions of the globules, on the two different occasions. On the first, only one

or two moved at the same time, and then but a short distance; and the motion was much more deliberate or sluggish. On the second trial, two thirds of the globules were in rather rapid motion at the same time; they continued moving in every direction for several minutes, pursuing any course but a right line. They would occasionally stop for a short time, when two or three would begin to travel again, which set nearly the whole of them in motion. This did not appear to be produced by actual contact of the globules; for although they could be seen to pass over and under each other, we could not discover that any one globule touched another. Besides, the motions would commence at comparatively distant points, appearing to be entirely spontaneous, and alike inexplicable on the supposition of capillary attraction, or mechanical currents. We continued to observe these motions for about five minutes, during which time there was no sensible abatement. All motion ceased on the addition of spirit of turpentine. Much disorganization ensued, yet there still remained some distinct and well defined globules. The number of *contained* globules was much diminished.

I must confess that I can scarcely think of stronger proof of the independent vitality of the globules of blood, than what has been just adduced. This position will be greatly strengthened by analogies to be found in the animal and vegetable kingdoms. We have spoken of globules containing globules; of small globules projecting from the circular outline of the large globules; we see them again apparently empty, and the small ones, which we may reasonably suppose to have been detached from a large globule; and also of apparently spontaneous and continued motions. The *volvox globator*, a species of the infusoria, consists of a spherical membranous sac, filled with a liquid, in which floats many more diminutive globules like itself, and which finally become distinct and independent entities.

Drs. Griffith, Rees, etc., speak of revolving globules, and of their being colorless when a lateral view is presented. Here we may find another strong analogy in the microscopic parasites which are attached to the scales of certain fishes, and are the cause of the luminous appearance which they always present when the night is dark, and especially when cloudy.

One or two scales of the fish is sufficient for the experiment; if shaken in water, and a drop of that water is examined with the microscope, numbers of these minute parasites of an elongated oval form, something like a barley corn, may be seen revolving, presenting alternately a dark and a luminous surface.

Certain plants that have been carefully examined will also present analogy. In plate 29th of "*physiologie vegetable de Raspail*," we find the appearance of the globules in the sap of the *Acer Platanoides*: (figure 6:) they are elliptical, containing within themselves many minute globules or nuclei. In the cryptogamic plants there is a parent cell, which having arrived at maturity, by the exercise of organic functions, bursts and liberates its contained granules. These thrown at once upon their own resources, and entirely dependent for their nutrition on the surrounding elements, develop themselves into new cells, which repeat the life of the original.

And as amongst the higher cryptogamia, the reproductive cell does not burst, but develops within itself the cells of a new structure which gradually extend into that primary leaf life expansion, which is the first formed structure in all its plants, the cells being in due time converted into well formed living entities; why should not the cell or globule in the blood be in like manner the original organized germ which imparts vital energy to the secreting organs and all other parts of the system, and finally producing the spermatozoa, and other living microscopic animalcules which are found in fluids eliminated from the blood by the process of secretion?

If the independent vitality of the blood can be established as a physiological fact, it will explain many singular phenomena observed in the difference between sensoria and animal death in man. It is well known that after a man is as dead as ever he can be sensorially, to the full satisfaction of the physician, friends, and attendants, the beard and the finger nails will grow for some time, and grow more rapidly, perhaps, than during what we call life. Again, in cases of cholera marked by powerful spasmodic action, convulsive twitches of the fingers may sometimes be observed for two or three hours after death; they are not constant, but recur from time to time without anything like regularity. By means of powerful electric or galvanic action judiciously applied to the nerves of a dead man, tremendous muscular efforts can be produced, without, however, in this case, as in the others, affording any evidence of sensorial direction.

In the experiments of Dr. Ure, on the body of a condemned and executed murderer, in the city of Glasgow, on the 4th November, 1817, the body suddenly rose, the muscles of the face being at the same time frightfully convulsed, and so great was the muscular power that two of the spectators, within reach of the arms, were hurled against the walls of the room with an irresistible force. The eyes also opened and shut with rapidity, and the muscles and the ball of the eye were alike affected with spasmodic action. Professor Matteucci, of Pisa, in Italy, has constructed a pile or battery of the hind quarters of frogs placed alternately in line on a board, and found, by the indications of his galvanometers, that the force of the current rests on no uncertainty, but depends on the number and vivacity of the frogs killed for the occasion, the direction of the electrical current being invariably from the interior to the surface. His experiments were much varied with the muscles of fishes and animals, and always with the same result. The Professor's final conclusion on the subject is, that the intensity of the muscular electrical current increases in proportion to the rank of animals in the system of nature. This curious phenomena lasts but a very short time.

In fact, there is a limit to all the phenomena of animal life which may be observed after sensorial death has taken place. The limit in man seldom exceeds three or four hours, by which time the vitality of the blood is exhausted when animal, or *complete* death ensues, nothing being left to control the ordinary operation of chemical laws, and to resist decomposition.

If this argument can be sustained, and the fact of the independent

vitality of the blood established, which is affirmed by the great Hebrew Legislator, who was skilled in all the science and learning of the ancient Egyptians; subsequently advocated by eminent physiologists; and furthermore demonstrated by mycrosopic observations, and illustrated by curious analogies in acknowledged living entities, as the infusoria and cryptogamic plants, then the difficulty respecting the various evidences which have been described of the duration of animal life for a certain time after sensorial death has occurred, is removed at once.

Many years ago, when experience, that stern teacher, had convinced me of the necessity of being decidedly conservative of human blood in diseases, I came to the following conclusions: first, never to abstract blood unless it was absolutely necessary: secondly, to bleed *topically* with cups and leeches, instead of *generally* from veins and arteries; thirdly, to take blood from an artery rather than from a vein, when it could be conveniently done, and would respond equally well to the indication; and fourthly, to bleed rapidly, so as to induce syncope as speedily as possible, and waste but a comparatively small quantity of blood. I saw the importance of observing the foregoing rules from the lamentable effects of frequent bleeding, such as the exhausted vitality, rendering convalescence doubtful and tedious. I saw it in ruined constitutions that were past all hope and remedy. I saw it in the pearly eye, and anxious pallid face; in the impaired powers of digestion and assimilation; in the puffy skin, in the painful laborious respiration, and in the universal tendency to dropsical effusion.

These reasons, which are all that I could at one time have assigned for deviating from the practice and recommendation of some eminent practitioners, are now, from the new views which have been presented of the organized nature of the blood, more than treply fortified.

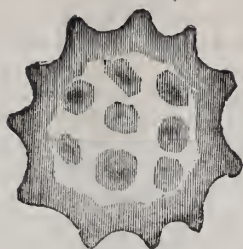
From the brief quotations I have made from Andral's able and interesting essay on the blood, it has been seen that various distressing and even dangerous nervous and other affections may, and do, arise from an excess or a diminished and insufficient quantity of globules in the blood. This consideration is alone of sufficient importance to demand great attention on the part of the medical faculty to the condition of the blood in all varieties of disease, by means of the microscope.

As the stethoscope will only avail us in detecting diseases in the lungs, after we have made ourselves familiar with the peculiar sound and movement of normal respiration, so should the blood be carefully studied with the microscope in healthy persons of both sexes, of various ages, and different temperaments, ere we can be able to note any deviation from the healthy condition of the globules.

Such an investigation, if carefully and perseveringly conducted, may lead to radical changes in the treatment of diseases, and which may prove beneficial beyond anything that we now dream of. It might also lead to the establishment of most beneficial rules in diet and regimen.

I do not think that it would be difficult for a careful and diligent observer to fix in his mind a permanent idea of the normal appearance of the globules of blood in the various phases of existence

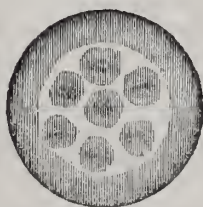
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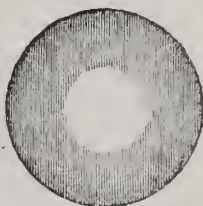
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Noting, then, with a judgment based on experience, the deviations from the normal standard, which may be very numerous, we shall be far better prepared than we are at present to invoke to our aid chemistry, therapeutics, regimen, &c., the diatetic art (in other words, "La chimie de la cuisine.")

In an article published in the January number of this Journal, 1849, I spoke of the great improvement that experience demonstrated could be made in plants, the lower animals, and man, by which may be called the training diet, regimen, cultivation, (education of plants,) the education of man in morals, arts, sciences, &c.

How do we ascertain what cultivation is best adapted to certain plants, and what manure is most appropriate? By a critical chemical analysis of the plant as to its component elementary parts, we may soon discover this. The finest fruit trees in our orchards, the most nutritious vegetables in our gardens, the graceful and luxuriant trees in our parks, the superiority of certain breeds of horses over others, and of man over his fellow man, individually or nationally, all prove the importance of a cultivation of the body, of the instincts, and of mind based on chemical researches, microscopic observations, and accumulated experience. If these things are true, how much more important must be the study of blood, and of every thing that tends to maintain a *healthy* standard of vitality; to preserve the system of man from disease, or relieve him speedily if diseased; and to elevate him morally and intellectually to the highest possible position. In concluding this article, I would observe that more recent researches of Professor Riddell on milk, tend much to confirm the views I have offered concerning the blood, I shall prosecute this subject, and hope in reasonable time to have laid the foundation of another article still more interesting.

III.—*Researches on the Natural History of Death.* By BENNET DOWLER, M. D., of New Orleans.

It is not my intention at present, to attempt even an outline of several of the most important branches of the natural history of death. Its preludes, its characteristics, general and special; its progress, its prognostics, and its pathological anatomy, will be omitted, not for want of facts, but because the facts I have collected on these subjects, are too numerous and unwieldy for the narrow limits to which this paper must be restricted. The pathological anatomy of death, the changes due to the agony *itself*; its immediate antecedents and effects, physical and physiological, including the order in which functions cease, and tissues die, together with the resulting anatomical alteration, being subjects of great importance, and deserving of the fullest investigation, cannot be disposed of in a summary manner. The period intervening between the agony and the usual time of post mortem examination, is rich in facts which have been too much neglected.

As I do not attempt a formal monograph on death, a systematic arrangement will not be expected. I propose to notice, in the first place, the criteria of the certainty of death, particularly the tests of death as set forth by the recent proceedings of the Academy of Sciences of Paris, in the award of the Manni prize; not that I have any ambition to be found in opposition to any opinion expressed by that learned body, but because a slight critical retrospection of the grounds taken in the official acts of the Academy, will enable me to give my views with greater clearness and usefulness. Besides, I speak more as an experimenter than as a critic. An experimenter is entitled, nay, often required, for the sake of perspicuity, to give an estimate of existing doctrines, that his own may be compared therewith. The authority of opinion cannot destroy facts, though it may retard, for a time, their reception and appreciation. Innovations, how true so ever they may be, are seldom received with alacrity, when they conflict with cherished systems. Physiological partizans of every age, meet every discovery, by saying that it is not true; or, if true, not new. Their bundle of opinions having been made up, the withdrawal of one weakens the whole. The detection of an error is in their reckoning, only so much damage to the temple of science.

Brocton-Phantasmist, who saw with his own eyes, the witches dancing on the Hartz mountains, nevertheless, reasons thus:

What is this cursed multitude about?

Have we not long since proved to demonstration,

That ghosts move not on ordinary feet?

But these are dancing just like men and women:

Whereupon, a witch answers;

Any step which in our dance we tread,

If it be left out of his *reckoning*,

*Is it not to be considered as a step.**

The great object of experiment, next to the discovery of truth, is the overthrow of error. A useful distinction this is. Truth is not indebted to erroneous systems.

*Goethe's Faust.

It may be objected to the critical portion of this paper, that it tends to throw doubt on the test adopted by the Academy of Sciences, and substitutes nothing in its place. For my own part, I am satisfied with the ordinary signs, though some of these are not at all describable, by writing or words, but well known to those who have witnessed death. But if a new method be desired, I will propose one in the sequel, though I do not admit the doctrine that it is necessarily the duty of the opponent of an old theory, to produce a new one in its place. It is better to have no theory, than to have an erroneous one, in physiology or physic. Lest it should be thought that this proposed test is the result of mere closet speculation, I must say, that it is founded on numerous prolonged experiments, probably one thousand, made directly on several hundred bodies; (to determine the exact number recorded in nineteen manuscript volumes, might require a week's examination, for which I have not at present the necessary leisure).

Those conversant with forensic medicine, will perceive that the searches have a direct bearing on that subject, since the very best and latest writers assume as data for the determination of several questions in relation to death, data of an uncertain character, as rigidity, contractility, animal heat, the coagulation of the blood, &c.

To prevent misapprehension, I beg leave to make a preliminary remark, that I have repeatedly made on former occasions, namely, that contractility, animal heat, capillary circulation, and the like, do not prove the body to be alive in the popular, legal, and utilitarian sense. The body may be eviscerated; the brain and spinal cord, removed; the arm may be amputated, and yet the flexors of the forearm will contract; complete flexions will take place; weights put into the palm will be raised up; provided, the flexors be uninjured, and the shoulder be secured so as not to roll about. Bichat's fundamental principles of life, but which he regarded as inseparable, namely, contractility and sensibility, are not here really united. As to what is commonly called life, the body may be wholly deprived of it, without necessarily losing muscular contractility or muscular life. An animal, after the removal of its heart, might be burnt to ashes, its heart might pulsate for hours afterwards; yet these pulsations would not be reckoned as life in its ordinary sense, nor would they afford any ground to hope for resuscitation. Hence, this variety of life is not life at all, in the usual sense. It must be admitted, however, that, by all classes of mankind, muscular motion is regarded as a fundamental principle of life. Kant defines life as an internal faculty, producing change, motion, &c., and says that organization is that in which all the parts are mutually ends and means; definitions, which, whether just, or not, proceed from one of the acutest thinkers of modern times, and rivals Bichat's celebrated definition of life, namely, "Life is the sum of the functions by which death is resisted." Life is an aggregation of vital phenomena or of means and ends; death is a destruction or alteration of these means and ends: all those vital phenomena which remain after the extinction of all the useful means and ends of life, do not really constitute life in its ordinary acceptation, or essential conditions, implying thinking, feeling, willing and acting. Put a knife in a dead man's hand percuss the flexors, and perchance, he may stab the operator in the eye

but this action is not stabbing in the legal or moral sense of that term. Contractility, in its isolated character, does not prove that life is present in its ordinary or utilitarian sense. Nor is rigidity, as is generally assumed, absolutely incompatible with the contractile power. These forces are neither incompatible nor identical; much less are they connected as cause and effect. Their lines of action cross each other; their essential conditions interfere greatly with their simultaneous manifestations. Rigidity is not really, but apparently, the negation of the contractile force. A man tied hand and foot, has the force, not the necessary conditions, to run a race. The contractile force, and that of the death-stiffness, often exist *simultaneously*. The latter may render the arm motionless—percussion may show a violent *nisus* or unavailing action of the flexor muscles. Now, if by mechanical means, or manipulation, as repeated, forcible flexions and extensions, the limbs be made supple, it is not, as might be supposed, exhausted, but set free, and will act, in some cases, with greater vigor than before the invasion of the rigidity. It is often easy to see that the contractile force acts with as much energy where it fails to accomplish its finality, or end, in these cases of rigidity, as in cases of flexion; for the elevated, ridgy contraction of the fleshy part of the muscle is the same, though motion of the limb there be none. Accidentally, so to speak, they limit, antagonize, and control each other. They are not identical, nor absolutely exclusive of each other, but they mutually influence each other, as the muscular and the gravitative forces do.

Without taking notice of the peculiar physiognomy of the dead, the lividity and cadaveric injection of dependent parts, the flattening of the tissues that sustain the weight of the body, and the other signs of death, of minor importance, I prefer to take the route already indicated, beginning with a slight review of the preludes which led to the institution of the Manni Prize.

In 1837, Professor Manni, of the University of Rome, proposed a special prize of 1,500 francs, to be awarded by the French Academy, for the best work upon the subject of apparent death; with the view of preventing premature interments. Since that period, this prize has been an object of honorable ambition by many candidates, as may be seen, from year to year, in the proceedings of the Academy. M. Donne, in a communication to that body, proposed, as the surest sign of death anterior to putrefaction, the altered condition of the blood-globules. He rejected rigidity as a sign, because it might be simulated, and in some cases of real death it never occurred. (Comp. Rend. v.) M. Lettelier claimed to have discovered the most certain of all signs of death, namely, the non-coagulability of the blood. (Ib. v. 526.) A little dissection, in the latitude of New Orleans, at least, will convince any one that the coagulation of the blood after death is a very common occurrence. It were, however, alike tedious and useless to enumerate all the wild speculations upon this subject, so exciting to the French mind. The competitors for the Manni prize were, doubtless, stimulated to action by the most honorable motives. The nation had not only taken this matter to heart, but had sounded the tocsin to the whole world, in nu-

merous elaborate treatises against burying people alive. M. Bruhier's book contained 180 frightful examples: 40 persons dissected before death; 27 falsely reported dead; 60 entombed alive, etc. (*Diet. des Sci. Med.* xxv. 174.) As the best informed writers put but little, if any, faith in this book, it is surprising that it should still occasion consternation. The *Revue des deux Mondes*, (Oct. 1848,) calls it a collection of bizarre stories, believed only by those ignorant of physiology and the healing art, and maintains that the author instituted no inquiry into the authenticity of the tales which he relates; that as an authority he is wholly incompetent; that his enumerations originated in his own imagination, and that his work is only calculated to alarm the public, without reason.

French Literature on the dangers of premature interment appears to be extremely abundant: Louis followed Bruhier; Penneau, Louis; Thierry, Penneau; Durande, Thierry; Nysten, Durande; Fontenelle, Nysten. The latter, after forty *experiences* on dead persons, without having found any muscular contractions from a galvanic battery, concluded that these persons were really dead, and that galvanism is the great test of life and death; an opinion as erroneous as it is universal. But the organon of terrorism originated with a distinguished member of the Academy of Sciences. About three years before the institution of the Manni prize, the work of M. Julia de Fontenelle* appeared. The doctrine of this, and of similar books, must interpose a barrier to the progress of pathological anatomy, and, by consequence, to the progress of the healing art, as it utterly forbids the early examination of the human subject by every principle that forbids homicide. The position taken by the physicians of New Orleans, in favor of early dissection, is at once rational, and, perhaps, unexampled in a practical point of view. All must admit that the sooner the seats of morbid alteration be examined, the better, and that, at a late period, physical and chemical changes are apt to obliterate the foot prints of disease, and to mislead the inquirer.

Among all the dissections I have made and witnessed, within a few minutes after death, (in its usual sense,) amounting to several hundreds, I never saw any indication of life, (in its usual acceptation,) nor have I ever heard that any other person, since the foundation of the city, had seen a case of the kind. If dissection calls so many to life in France where that process is never allowed until twenty-four hours after death, surely, the same ordeal in New Orleans, where there is, or used to be, a delay of little more than the same number minutes, ought to have a similar effect.

Several years after M. Fontenelle's book was published, he brought forward this alarming subject with renewed seriousness and zeal, as may be seen in the Dictionary of Sciences. (*Dict. de la Convers.*, xxxix.)

* *Récherches Medico—Legales sur l'incertitude des signes de la mort, les dangers des inhumations précipitées, les moyens de constater le décès et de rappeler à la vie ceux qui sont état de mort apparent.*

In England, no medical author of reputation has written at any length on this subject. (Guy's Med. Jur., 371.)

The cases of resuscitation from apparent death, which M. F. reports, were not witnessed by himself, nor were they established as facts by evidence of a satisfactory character, having nearly all been newspaper stories. Instead of giving an analysis of his cases which I had translated, I will substitute a few extracts from a recent criticism on that work—not so much for its logic, as for its expositions on the general aspects of this subject, in the British Empire: “M. Julia de Fontenelle seems to have persuaded himself that burial grounds are a species of human slaughter-house. His hopes of recruiting population from church yards are grounded on a hundred cases of apparent deaths gleaned from the entire history of the world. Nor is there in the whole of his book, one single case bearing out his position. It is no unreasonable scepticism to assume that the majority of the persons revived never lived. Yet not only is this book still in vogue, but the French newspapers annually multiply these tales to an extent which would be frightful if they were not refuted by their very number; but we [English,] are tame and prosaic in our insular tastes. Our agreeable neighbors require a stronger stimulus, and therefore endless changes are rung upon the theme of living men buried, and of dead men brought to life again. In Spain, if M. Fontenelle's word is a warrant for the fact, whoever oversleeps himself will have to finish out his slumbers in the grave, which beyond doubt, is the most powerful incentive to early rising that was ever devised. But in France, the grand theatre for these harrowing tragedies, it is usual to bury on the third day; and if at that interval it was common for seeming corpses to revive, we, in this country, [England] should be habituated to behold persons, whose deaths had been announced, to rise up and doff their grave clothes. Who ever *heard*, in Modern England, of a person, who had been numbered three days among the dead, resuming his vacant place among the living?” (Lond. Quart. Rev., Oct. 1849.)

I am not aware that the records of the United States furnish a well authenticated example of revival from apparent death, at the length of even a few hours after the ordinary signs of death had occurred. The most remarkable supposed case of this kind, which still agitates the public mind, is that of the late Philip Doddridge, an eminent lawyer and statesman, of Virginia, a gentleman with whom I was acquainted, having been the family physician to one of his sons. The story, founded partly in fact, has been variously related, but never confirmed, by competent witnesses, as to manner, duration, signs, tests, and essential conditions. A case of apparent death, from yellow fever, reported by Dr. John Rush of Philadelphia, though not until six years after its occurrence, is related in Dr. Coxe's Medical Museum for 1805. The patient James Clark, aged 19, affected with yellow fever, died with black vomit, on the fourth day. During the apparent death of four hours duration, the doctor gave a gill of strong brandy, every half hour etc. Is it not remarkable that a *living* man should recover after black vomit? Is it possible for a dead man to swallow so much brandy? Is it likely

that such a case, which was witnessed by many, according to this narrative, could fail to produce great excitement, and consequently, a thorough investigation—a complete verification, and an immediate publicity, and the more so, as it was infinitely honorable to the doctor, and advantageous to the cause of humanity? * After all, this is the best authenticated case that I have met with.

The evidence in the alledged resuscitation of the Rev. Mr. Tennant, many years ago, is altogether unsatisfactory. In both of these cases, the hope entertained, rested on the persistence of the animal heat; this of itself, as I have fully proved in several hundred cases, affords no evidence of the presence of life, at least in fevers and cholera; indeed, it is in some instances, a proof of the reality of death—for after death, and only after death, does the animal heat reach 113° of Fah.—an elevation which I have noticed in the centre of the thigh. The rectum often gives a heat nearly as great after death.

According to the London Lancet, (1845,) inhumation, in England, does not take place until one week after death—frequently not before a fortnight has elapsed, which is common in the metropolis and neighboring counties; *but frequently the time is prolonged to three weeks*, putrefaction in its most horrible form, going on from day to day in small unventilated apartments.

Professor Guy says, "In England the body is never committed to the grave until putrefaction takes place," (Med. Juris. 372)—a useless delay since it saves nobody among the dead—annoys the living, and interposes barriers to the progress of pathological anatomy and the healing art.

In New Orleans, burial follows very soon after death, particularly among strangers dying of yellow fever, sunstroke, etc. There ought to be a public Dead House for the city. Men while walking the streets are sunstruck, and die in thirty minutes, and, in some cases, are carried to the grave yard, three hours afterward, as I can testify. Private families have no relish for the companionship of a corpse.

Surely, then, the English do not bury their compatriots alive. In no country ought resuscitations from apparent death to be so common. And, yet no one comes to life again in that great empire! The medical journals, early in 1846, contained the following summary of premature interments in France, taken from the French themselves: "*Premature Interments.*—It is stated that the cases of premature interment in France, prevented by fortuitous circumstances, amount since the year 1833, to 94. Of these, 35 persons awoke of themselves from their lethargy, at the moment the funeral ceremony was about to commence; 13 recovered in consequence of the affectionate care of their families; 7 in consequence of the fall of the coffins in which they were inclosed; 9 owed their recovery to wounds inflicted by the needle in sewing their winding sheet; 5 to the sensation of suffocation they experienced in their coffin; 19 to their interment having been delayed by fortuitous circumstances; and 6 to their interment having

* Professor Guy in his Medical Jurisprudence, inclines to think that some authentic cases of restoration to life have occurred, "though no other subject connected with forensic medicine, can boast of so large a collection of strange and improbable fictions."

been delayed in consequence of doubts having been entertained of their death."

The writer already quoted, estimates the average period, between death and inhumation, in France, at three days; during this time a multitude are restored to life, to say nothing of those buried alive! The members of the Academy, often argue in favor of protracting this period still longer, and very frequently the English practice is appealed to as a model for imitation! This is logic inverted. The English in two to three weeks save none! The French in three days save many! The English ought to imitate the French method, and, perchance, they may have the good luck to awaken some one.

MM. Bayle and Gibert, (Dict. de Med. II 122,) have collected fourteen cases, no better authenticated than those of their compatriots. The eleventh case, copied, as usual, from a newspaper, (Le Temps, 2 mars 1835,) is on this wise: an infant, aged two years, died at Munich—was carried to the dead house, (la maison mortuaire,) where it remained, according to the rules of the city, until the time of burial; at which time, though enveloped in its winding sheet, it began in the gayest manner to play with the flowers that had been strewn over its body! The authors naively add: "This case demonstrates the extreme importance of mortuary establishments. In France, this infant would have been interred alive." Now, the internal, or physiological evidence which this story necessarily implies, is worthy of consideration. Let a healthy child lie three days in a fixed, constrained position; the parts that sustain the weight of the body will be inflamed, perhaps mortified, and the child of that age will be nearly, if not quite, starved, to say nothing of the effects of the disease which caused its supposed death. Now, a little knowledge of the nursery would, or ought to convince any one, that a babe of two years, under these circumstances would ery with all its might, instead of playing gaily with flowers—"jouant gaiment avec les fleurs dont on avait paré son corps." These writers deplore the unhappy condition of France, on account of the imminent danger which exists in that country of being buried alive—"Terrible danger d'être enterre vivant." So stood this story of the child in 1836. Nine years after, M. Leguern, in his petition to the king of the French, against the burying of people alive, makes this child *four* years old. She is found *sitting* up in her coffin play with *white* roses. At the same time, this gentleman* declared, that since 1833, no fewer than 46 cases of premature interments were prevented by pure chance, within the immediate circle of his own observation; four were saved by falls in their coffins, three by wounds from pins in their shrouds, &c. These were saved by *pure chance*! How many more must have been saved by design; that is, by suitable treatment! If M. L. saw 46 revived by *pure chance* in 12 years, it is fair to conclude that such good luck must have suggested the propriety of applying both art and science to this good work. If M. L. saw 46

* I quote M. L., as reported in the NEW ORLEANS BEE. (Aug. 13th, 1845, from the *Réforme*)

saved by pure chance, by the aid of science, he must have made up an even hundred. Now, if there be 75,000 physicians and health officers in France, all equally fortunate, there is at least half a million annually restored to life! But, if we take the revivals owing to pure chance, which happeneth alike to all, the aggregate in 12 years will be, for France alone, three millions and a half; for the whole world, about 100 millions, to say nothing of as many more smothered in their graves. How happens it that France requires 139 years to double its population,* seeing that the resurrections must equal one third of the deaths, on the supposition that other medical men are as fortunate in their purely accidental experiences as M. L.?

Some of these resurrections are very romantic. Lovers disinter lovers. Madame Renelle, (formerly Mdle. Sapausage,) died in 1810; was buried, not in a vault, but in the ground; M. Bossuet, (a poor *litterateur*, but an old lover,) then in a remote part of France, having heard of her death, undertook a long journey in order to get a lock of her hair. He dug her up at midnight, and found her alive! She married him forthwith—fled to America—returned in twenty years to France; whereupon, M. Renelle, banker, her husband, claimed his wife; but the judges gave her to Bossuet. Now, this lady, how live soever she might have been at her interment, could not have remained so many days without fuel, food, air, and other conveniences.†

I return from this digression to the subject of the Manni prize, which was placed, by a royal decree, at the disposal of the French Academy in 1837. The subject was important. The public had a natural aversion to living entombment. How to avoid this was the great question. The philosophers, as well as other people, without hesitancy, admitted that putrefaction was a certain test of death, but in nothing else could they agree. The prize of the Abbe Manni was founded with hope of discovering some other satisfactory sign *anterior to that of decomposition*, for the inconvenient delays, and the deleterious effects of keeping the dead until this repulsive change had taken place, were obvious, and were the very things to be anticipated and prevented.

Besides, in some climates,‡ the test of putrefaction would not occur for weeks or months, unless the rooms be artificially heated to a high temperature, which, to the poor, would be both inconvenient and expensive, and often impracticable during epidemics, and, in cases of contagious diseases, unsafe. The prize question did not contemplate this *test at all*, seeing that it comes too late.

* D'Angeville, Statist.

† This *penchant* of resurrected wives for marrying lovers whom they had inconsiderately rejected, explains a maxim ascribed to a French philosopher, namely marry whom you will you will afterward find that you have married quite another person. A case is related of a different character: the carriers of a dead lady, in turning, struck the coffin against a corner, which recalled the lady to life. Some years after, having died again, the husband charged the carriers to be careful in turning the corners of the street.

‡ In Russia, during the long winter, the animals killed for food are preserved wholly by the climate, no salt or other antiseptic being needed. The meat stowed away or hung up in market, is frozen at once, and continues so till spring.

It is conceded, that the award of the Academy was made conscientiously; that the paper crowned with the prize, was the best among the multitude offered; and that the Academicians are, as a body, unsurpassed for general learning and science. But the Academy has no monopoly of nature, nor of her true interpretations. Her platform of facts and her voice of truth are alike accessible to all mankind; and her best Academicians are those who read her volumes most correctly.

According to M. Bouchut, the successful candidate for the prize, the "certain signs of death are *immediate or remote*. The first consists in: 1, the prolonged absence of the sounds of the heart; 2, the simultaneous relaxation of the sphincters; and 3, the sinking of the globe of the eye, with loss of transparency of the cornea. The first of these, alone, is regarded by the committee as conclusive. The *remote* signs are: 1, cadaveric rigidity; 2, the absence of muscular contractility under the influence of galvanism; and 3, putrefaction."

The first cannot be a very general test. For, passing by this test as *satisfactory in itself*, its application must be limited, because there are but few good stethoscopists among good practitioners, and, in the best hands, certainly is often not attainable.

I speak not of the ideal, but of the actual state of auscultation. In some cases where able auscultators have pronounced the heart altered or diseased, I have found it healthy on dissection. This is one difficulty. But this is not the worst. The Academy, and M. Bouchut, take for *granted*, that which may not be *true*, and *which is the very thing to be proved!* Who has proved that the heart, like the pulse, like every other organ, may not fall into *temporary quiescence or inaction?* May not the heart itself suffer apparent, not real death, as all analogies drawn from other muscular organs teach? The sphincters, uterus, intestines, and stomach, the respiratory, lingual, ocular, and locomotive muscles may be palsied, inactive, apparently dead for a time. It is a downright begging of the question, to assume that the heart *cannot itself fall into this very state of apparent death*. The natural history of the movements of the heart, indicates the probability of a temporary suspension of action; at one time it gives 200, at another 8 or 10 strokes in a minute; it intermits, or is irregular. In cholera it is probably cramped in some cases; temporarily quiescent in others. Moreover, it has, in common with other muscles, a kind of life of its *own*; it is not the known sole criterion of general life. Comparative physiology shows that an animal may live hours without the heart, and the heart for days* without the body. An alligator's heart will act with regularity for many hours, perhaps for days, after having been cut out of the body, and emptied of its blood. Let an alligator thus deprived of its heart, be roasted; return its heart, and apply the stethoscope, and then the dead will afford this certain sign of life! The commission of the Academy cannot object to

* This I cannot vouch for as an observation made by myself, but Dr. Lindsay of this city, has seen the separated heart of the alligator still in action, on the second day after its removal from the body, which I fully believe, though, I have never watched the heart more than 6 to 9 hours continuously after separation.

this argument, because they themselves experimented on the inferior animals in testing M. Bouchut's claims : as for myself, I have shown, in my published papers, that I attach less importance to comparative physiology, as the interpreter of human physiology, than systematic writers do themselves. If I take their own point of departure, they can require nothing more.

M. Dumas, author of the Article *Cœur*, in the *Dictionnaire d'Histoire Naturelle*, quotes Bacon, Haller, and Diemerboeck, who state, that in man, the heart may be removed without suddenly extinguishing life, and that men have looked about, spoke, and prayed after having lost their hearts by the executioner ; though M. Dumas does not vouch for the truth of these statements. (iv. 289.)

Moreover, has any one asserted, much less has any one proved, that the action of the heart is always appreciable ; that it never can be so feeble as to escape observation, remote as it is from sight, and even from the hearing ? To say with the Academy, that a *prolonged absence* of cardiac sounds, is an absolute proof of death, is vague and unsatisfactory ; *prolonged absence* of animal heat, or of respiration, would equally prove the reality of death, not to mention other tests, as rigidity, &c.

The very object contemplated by the Manni prize, is to dispense with this prolongation ; for, if a prolongation be necessary, there is an infinitely better test ; one absolutely certain, the characteristics of which all know as well as the Academy, namely, putrefaction, and which ought not to have entered into the enumeration of M. Bouchut at all. Had M. Bouchut adopted as the criterion of death, the prolonged absence of respiration, the test had been equally, nay, more certain, and, withal, of easier application, than the uncertainties of auscultation. "If the respiration," says Dr. Paris, "be suspended only *five minutes*, we may conclude that life is fled forever. Of all the acts of animal life, this is by far the most essential. Breath and life are properly considered in the Scriptures as convertible terms ; and the synonym, as far as we know, prevails in every language."

As M. Rayer, reporter, and his coadjutors of the committee, regard this auscultatory test as the principal feature of M. Bouchut's essay, it is proper to look a little further into this matter. M. Rayer and the commissioners made some experiments on the human subject, and on animals ; from which they conclude, with M. Bouchut, that "the absence of pulsation of the heart for *five minutes* leaves no doubt of the cessation of life ;" but how many experiments they made does not appear : let us suppose fifty. Now, from the very nature of the case, this is but a negation ; a *non sequitur* ; for it might have happened, that all, or a portion of the next fifty cases would have revived after a *temporary cessation* of the heart's action. Suppose the commission had tried the non-respiratory test for the same period, namely, *five minutes* ; would they have found any revivals ? Would they not have been able to draw a conclusion equally certain ?

The Shakspearian criteria of death ' will probably not fail once in a thousand years, if ever :

Lend me a looking glass,
If her *breath will mist or stain* * *
Why then she lives.

He also has another similar test; that is, the suspension or application of a feather before the lips :

By these gates of breath
There lies a downy feather, which *stirs not* :
Did he *suspire*, that light and weightless doom,
Perforce must *move*.

The Friar tells Juliet what the signs of death are :

——— “ *No pulse shall keep*
His natural progress, but *surcease to beat* ;
No warmth, no breath ;
The roses on thy lips and cheeks shall *fade*
To paly ashes ; thy eyes' windows *fall*.
Each part *deprived of supple government*,
Shall *stiff and stark, and cold appear*. * * *

Did the Academy find these signs fallacious ? Is not the Shaksperian the enumeration the same as that of modern physiologists ? The circulation ceases; the body cools ; the breathing ends ; an ashy palor replaces the natural hues ; the cornea grows dim and relaxes ; rigidity prevails. These signs may safely challenge, for certainty, all those of the stethoscopes of the whole Academy.

The loss of respiration, tested by sight, by the misting of the looking-glass, and by the suspension of a feather before the lips, though good tests may be fortified by other respiratory phenomena, which have been but little noticed in this connection, by poets or physiologists, namely, the *peculiar progressive, or rather retrogressive manner by which respiration recedes from the lungs to the trachea*, from the latter to the larynx, from the larynx to the mouth, and from the mouth to the very lips ; this is characteristic, nay, conclusive, if I may judge, of true death, though I do not know that it has ever been regarded at all. It is indeed very different from the cessation of breath in cases of suspended animation, or apparent death, in hysteria, catalepsy, eroup, convulsions, strangulation, fainting and the like. The manner of the cessation of respiration, though indescribable to the inexperienced, is very peculiar, and is the earliest absolute sign of real death. The præ-mortem signs of death are very conclusive.

The second great sign of death is, according to M. Bouehut and the Academy, the relaxation of the sphincters. When I say that this is as great a mistake as was ever uttered, I speak from an experience, in this particular line, that probably has never been equalled—I can hardly imagine that any sane experimenter will take the same pains in its verification—a verification incidental to several years' experiment on

animal temperature,—a single experiment often lasting several hours, during which thermometers have been repeatedly passed within the sphincters. The latter, with very few exceptions, contract strongly after death. Relaxation of the sphincters is not a post mortem, but an ante—or præmortem phenomenon. It happens, sometimes, as a disease, and it is not a fatal symptom. I have seen the sphincter ani completely palsied, open, shapeless. Its relaxation is a frequent occurrence during the agony; but when that ceases, the tonicity of the sphincter ani, for example, returns immediately, and, what is more, after prolonged artificial dilatation with the thermometer, quickly closes, preventing the escape of large accumulations of liquids, as in cholera, yellow fever, etc. In passing through the wards of a hospital, an observer will notice among the dying, even in the visage, relaxations, which will often disappear in a few minutes after death. It is before, not after death, that the orbicular muscle is relaxed, the mouth open, the under jaw fallen, and so on.

The third and last sign relied on by M. Bouchut and the Academy, “is the sinking of the globe of the eye, and a loss of transparency of the cornea.” This sign has long been much insisted on; but it utterly fails as a uniform criterion of death, as I could show. I will only remark that this change happens before death in some cases, and often it does not appear after death in time to be useful, particularly, in some cases of death from yellow fever, the eyes remaining prominent for a considerable period, even for hours. The cornea, in many cases, can be preserved for hours in a transparent state by closing the lids, and carefully excluding the air. The experiment will be the more striking, by keeping one eye open, and the other shut; the former soon becomes dim or glassy from simple desiccation; in the absence of natural secretion; the latter will be nearly as clear as in health.

Does not the globe of the eye recede, and its convexity diminish before death, in many cases of cholera? I incline to the affirmative.

The cornea may become *flattened, dry, and without transparency before death!* This fact, to me quite new, can be well authenticated, if necessary: 1849—Feb. 11th; James Garner’s child, a female, born in England, aged three—sick three days with cholera complicated with congestion of the brain; insensible for twenty-four hours; cramps; severe clonic convulsions, sometimes general, sometimes local; otherwise motionless; takes no notice; eyelids widely open and fixed, as in staring; never winking; *cornea dull, glassy, flattened* in appearance; as dry as paper. Washes caused no winking. Feb. 12th; *the desiccation of the cornea increased, flattened, lustreless*, almost horny; pupils dilated, insensible to light, fixed—a gunny mucosity exuding from the conjunction. The following day, the condition of the eyes was the same. The coma increasing, the child died. Here, *before death*, is an example of the very changes in the eye, so much relied on as the sign of death, with this difference, that among many hundreds of the dead, it would be difficult to find a more aggravated and frightful case, anterior to putrefaction.

The Revue des deux Mondes, (Oct. 1848,) hails M. Bouchut's important suggestion of auscultation, as the test of death, as a discovery absolutely perfect, leaving nothing more to be desired, dissipating every fear, even in the most timid, as to the danger of premature interment, and, thereupon, glorifies France, as the benefactor of the whole human race, in these exulting words: "C'est à la France, il est bon de le rappeler en finissant, que revient le double honneur d'avoir, la première, posé le problème des signes de la mort sur le terrain scientifique, comme de l'avoir, la première aussi, scientifiquement résolu."

I propose the thermometer as a means of testing death, possessing, as it does, superior certainty over the stethoscope. The latter method takes for granted, that in apparent death, the heart's action continues; that it cannot be for a time suspended, and that its action can always be heard! The very analogies of apparent or temporary death seem to oppose or contradict these assumptions. The analogies and the positive facts known of animal temperature, teach that, during life, the body is not heated and cooled like inert matter. Place two or three thermometers in the arm-pits—in the bend of the arm, (the forearm being flexed,)—in the mouth and within the sphincters, to ascertain the heat of the surface, and of centres, (the rectum is the best, and most accessible centre). The application of the thermometer requires no skill, and is open to the inspection of all, and is a test for all the warm blooded animals—at least for man. While the auscultatory test takes for granted that there can be no temporary inaction of the heart, and that all its motions can be heard; the thermometrical test takes nothing for granted without the most indubitable proof. Its great axiom is that man, in his living state, maintains an uniform temperature, independent of the surrounding media, while a dead man, like other inert matter, has no independence of this kind, but steadily responds to, and is governed by, calorific conditions altogether physical—heating and being heated, receiving and radiating caloric. This is not the result of speculation, but of prolonged and varied experimental research.

The refrigeration of the body before death, in cholera, congestive, and the like, is not physical refrigeration, responding to the calorific condition of the surrounding media; it is a morbid, or physiological caloricity, which, for a time, augments or continues stationary after death, until it shall be replaced by physical refrigeration, as its phenomenal history clearly shows.

The facts which I have published concerning post mortem caloricity, do not invalidate this thermometrical test; for soon, or late the physical refrigeration must take place. I may here add, that the speculative opinion which prevails among those who do not take the trouble to make experiments, namely, that these calorific movements are the effects of putrefaction, is wholly unfounded, (so far as it regards the human subject;) how much soever it may be countenanced by certain analogies derived from other inert matter. The calorific, and the putrefactive periods, so far from coinciding, antagonize each other, so long as the heat is not in accordance with the ordinary physical laws of ca-

loric. The point of coincidence and equilibrium, is really the point of putrefaction, unless the circumstances be of an extraordinary character, such as involve the freezing point, or that of torrefaction. But the predomination of the invariable law of physical refrigeration, is a criterion always attainable, and may be proved, as to its times, distances, and velocities, by arithmetical calculation: ascertain the temperatures of the media, and of the heated body; the velocity of the refrigeration will be proportioned to the times and distances, and will proceed from the surface to the centre, until the equilibrium be attained. The only objection that lies against this rule relates to calorific conditions, where the differences between the heated body and the media are very slight; but this is of no importance in practice, because there is always a marked difference between the average temperature of the air in the shade, and that of a living, or recently dead person.

The technical phrase, *THE AGONY*, whether regarded in its esthetical, or pathaological sense, is an unfortunate one, inasmuch as it conveys an exaggerated notion of the pain incidental to the last struggles of life. The great physical and physiological alterations presented, do not indicate the measure of the misery endured. The countenance, it may be, is profoundly altered; the voice feeble; the respiration irregular, rattling; the eye rolled upward; the strength gone, &c.; yet, those changes so frightful to the beholder, are illusions, and are not, in general, the indicants of a concentrated agony: for sensation *itself*, wanes, so that the actual suffering bears no comparison to that experienced in the inception and progress of the disease, anterior to the agony. Parturition, which is not called a disease, is more painful than many cases of death. Gout, rheumatism, ear-ache, tooth-ache, calculus, colic, neuralgia, whitlow, white-swelling, and the like, often transcend the pangs of dissolution. It is not a concentration of feeling, but the loss of it, that oftenest characterizes death. One of the principal illusions on this subject, grows out of the irregular or convulsed movements of the muscular system. These movements are not to be taken as the measure of sensation. Indeed, they have no necessary connection with feeling at all. I have seen several dead bodies (from cholera) undergoing apparent convulsions, cramps, and contractions of the muscles of the face and of the mouth, which, according to the usual anatomical expressions of pain, might be profitably studied by the painter and sculptor, since they are similar to those changes produced by intense suffering. A patient sometimes fails to feel his disease, though he may feel everything else. He possesses sensation in all its integrity, so as to notice the touch of a musquito, and feels, with the most exquisite sensibility, the pain of a sinapism, blister, or small accidental burn, as in cupping, while he has little sensation in relation to the malady of which he is actually dying. Many examples of this, recorded at the bed-side, could be adduced. A young man, from New York, on the day of his death, from yellow fever, inquired with much earnestness as to the prospect of his succeeding in his profession in New Orleans. His conversation was rational. He had not the least apprehension of his

impending death. He said he was free from pain. He complained, however, of the coldness of his feet, which, on examination, were found to be, as he represented them to be, very cool. He drove away musquitoes that touched his person without waiting for them to bite. This I have often noticed in persons dying of this malady. Many persons have declared that they were free from pain, or suffered little, except from blisters, cups, or mustard applications. These cause dying persons, in not a few cases, far greater sufferings than the agony, and, therefore, should be avoided altogether, in hopeless cases.

Sometimes, sane persons, in the *agony*, in yellow fever, leave their beds, dress themselves, in order to walk out on business or pleasure. Others sit up, and read novels, as has been reported by some of the physicians of New Orleans. One of my patients, a stranger, during the agony, as well as before, fearing that he would be robbed, kept his money (about one hundred dollars) in his belt, which he took off, and put on, and calculated the change accurately, as often as was necessary to settle his small accounts for medicines, lemons, &c., until his last breath.*

There is much evidence extant showing that death is often unattended with severe suffering. Boileau, the poet, while in the agony, did not appear to suffer. He saluted a friend that entered his room: "good day, and adieu—a very long adieu"—and instantly expired. The poet Fontenelle, just before he died, said that he had no pain; only a little difficulty in keeping up life."

Goethe, at the age of 82, died at Weimer, March 22d, 1832, without any apparent suffering. A few minutes before his death, he called for writing materials, that he might express his delight at the arrival of spring. "If I had strength to hold a pen," said Dr. William Hunter, during the agony, "I would write how easy and delightful it is to die." "If this be dying," said the niece of Newton, "it is a pleasant thing to die." "If this be dying," said Lady Glenorchy, "it is the easiest thing imaginable." "I thought dying had been more difficult," said Louis XIV. "When a by-stander remarked of Dr. Wollaston that his mind was gone, the expiring philosopher made a signal for paper and pencil, wrote down some figures, and cast them up."

The poet Keats, who, as his biographers affirm, and as his epitaph indicates, died of a malicious criticism, playfully remarked in the agony: "I feel the flowers growing over me." Whether this kind of death comes under the head of *euthanasia*, is not easy to determine. In my own practice, I have seen two almost instantaneous deaths, without a struggle, from moral causes. "It is said that Dr. John Hunter intimated, on leaving home, that if a discussion, which awaited him at the hospital, took an angry turn, it would prove his death. A colleague gave him the lie; the coarse word verified the prophecy, and he expired almost immediately in an adjoining room."

New proof that death may take place without pain, is afforded by the recent discovery of anæsthetic agents: as ether, &c. Several persons,

*Immediately after death, this man (a stranger) was robbed.

in different nations, have died, from inhalation, in less than one minute, according to the reports of sundry competent witnesses. The inhalation of ether or chloroform, unmixed with atmospheric air, will, doubtlessly, kill as certainly as hanging. Hence, it is to be hoped, that the benevolent legislators of our country will provide that criminals may elect this pleasant mode of execution.

Fainting, a temporary death, is painless. Death sometimes approaches the character of a perturbed sleep; not more painful, probably, than the nightmare. The snoring, or rattling respiration, is not necessarily accompanied with intense suffering.

The pain of death differs greatly in different cases. In sun-stroke, in the first degree, always fatal, (generally so in less than an hour,) there is not a trace of sensation; as tested by blood lettings, sinapisms, cold water, ice, &c. There is evidence extant, showing that persons who had undergone apparent death, and with it, probably, all the pains of actual death—had suffered little, *except during resuscitation*.

The ideal of death, particularly a violent death, is frightful. Its actual suffering must often be trifling, as in the case of death from a cannon ball. A few persons have expressed a preference for a violent death, as being the easiest. Sir John Moore, Nelson, and others, expressed a wish to die, as they did, in battle. "Pliny considered an instantaneous death the greatest felicity of life; and Augustus held a somewhat similar opinion. Cæsar desired the death which was most sudden and unexpected.

With respect to apparent death, (or what is the same thing so far as *sensation* is concerned,) real death from drowning, the testimony appears to show that it is almost painless. The London Quarterly Review says: "The struggles at the outset are prompted by terror, not by pain, which commences later, and is soon succeeded by a *pleasing languor*; nay, some, if not the majority, *escape altogether the interval of suffering*. A highly distinguished officer, still living, speaks of the *total absence of pain* when under the waves; but adds a circumstance of startling interest, namely: that during the few moments of consciousness, the whole events of his previous life, from childhood, seemed to re-pass with lightning-like rapidity and brightness before his eyes."

Of all modes of execution hitherto practiced, there can be no doubt that hanging is the best. I have seen it performed in the most bungling manner, so that the criminal's legs reached the ground; nevertheless, the death was almost instantaneous, and almost without a struggle. The London Quarterly Review maintains that the evidence is full and complete, showing, from persons restored to life, that death from hanging is as easy as could be desired; all agreeing that after a momentary uneasiness, a *pleasurable* feeling immediately succeeds; beautiful colors, of various hues, start up before the sight, which having been gazed on for a short time, all the rest is oblivion. Although this direct internal evidence cannot be obtained in cases of decapitation, yet external evidence is not wanting to show the persistence of sensation for a *considerable period after* this latter mode of execution. "It is said that the lips of Mary, Queen of Scots, moved and prayed for a

quarter of an hour after she was beheaded. As the word 'murder' was called into the ear of a criminal who was executed for this crime, at Coblentz, the half closed eye opened wide, and he stared with an expression of astonishment at those who stood before him. Wendt relates, that, having put his mouth to the criminal's ear, and called him by name, the eyes (of the decapitated) turn to the side from which the sound came."

Death from congelation, frightful as it is usually thought to be, judging from the pain which a slighter degree of cold produces, is nearly free from suffering. Here the proof is abundant. During the retreat of Napoleon's grand army from Moscow, in 1812, cold, in connection with fatigue and want, destroyed more soldiers than battle; amounting to one hundred and thirty-two thousand.* The benumbed soldier laid himself down to sleep in the snow, knowing well, from daily observation, that it would prove to be his winding sheet. Intense cold, it has been observed, produces a tendency to sleep which is at once delicious, and almost irrepressible. To resist only is painful. The patient prefers yielding to the fascination, fatal though it be. Larrey, the chief surgeon of the grand army, describes death from cold as beginning with paralytic torpor, and ending in an apoplectic slumber. Beaupre, one of his coadjutors, yielded himself to this "delicious sleep," but was fortunately aroused by the cries, oaths, and blows of two soldiers who were killing an exhausted horse that had fallen near him. He arose, leaving eight frozen corpses at the spot where he had been slumbering.

Nature, kinder to man than he is to his brother man, deals gently with the dying, and smoothes the way to the tomb. There is not a single disease in the whole nosology, but what is, in its most painful form, enthanasia bliss, compared with the horrible tortures, particularly by fire, which the Church and State invented and practiced at former periods.

That pious king, Henry VIII, the reformer, publicly executed, often with the most horrible tortures, no fewer than 22,000 persons, in England and Wales, chiefly for heresy against himself and God! According to Dr. Dick, the inquisition caused 34,655 to be burned alive, for heresy, during the 278 years ending in A. D., 1759; and, at different periods, thirty thousand ladies were burned by that tribunal, for witchcraft alone. Science was made to stand by, in order to determine how far torture could be practiced without extinguishing life too soon, lest the sufferer should fail to *taste the agony sufficiently*. The rack, impalement, drawing, quartering, the wheel, the screw, the wedge, and the like, were pleasant, compared with those slow fires which were kindled for such as dared to think for themselves.

In 1827, in Gottingen, and in 1841, in Prussia, the cruel punishment of the wheel was still used.

The victim, stretched around the wheel, after various other tortures, his limbs having been broken, at intervals, in eight places, by blows

* Alison.

with an iron bar, was at length, in some cases, allowed the favor of two or three blows over the stomach, called *coups de grace*! but even these coveted blows often failed to extinguish a tenacious vitality.

The mental and moral aspects of death, deserve the utmost attention of the physician, since it is his duty, as far as in him lies, to

“Minister to a mind diseased,
Pluck from the memory a rooted sorrow,
Raze out the written troubles of the brain,
And, with some sweet oblivious antidote,
Cleanse the stuff’d bosom of that perilous stuff
Which weighs upon the heart.”

Hope is an excellent medicine. If truth be natural, so is hope. Hope lingers to the last—a consolation, which, unfortunately, the professor of the healing art, is less likely to enjoy than other people, though, he, too, is apt to expect recovery under the most desperate circumstances of incurability. Instead of necrological meditations and fatal prognostications, expectation ought to be administered to the sick, as far as is practicable without moral dereliction. The whole of man’s nature, physical, moral, and religious, ought to be regarded, so far at least, as they influence healthful, or morbid action. They are the true elements of that euthanasia, which, next to the restoration of health, ought to be the object of every physician. Indeed, in the treatment of disease, a strong belief or presentiment of impending death, is an unfavorable circumstance, sometimes causing, and often accelerating a fatal termination. Even resignation, some one defines by the word *despair*. “Flequier, the divine, had a dream which shadowed out his impending dissolution. He sent for a sculptor and ordered his tomb. Begin your work forthwith, he said at parting; there is no time to lose: and unless the artist had obeyed the admonition, death would have proved the quicker workman of the two. Mozart wrote his Requiem under the conviction that the monument he was raising to his genius, would, by the power of association, prove an universal monument to his own remains. When life was flitting fast, he called for the score, and, musing over it, said, “Did I not tell you truly that it was for myself I composed this death chant.”

In sickness, and in death, the mental, the moral, and the pathological are alike powerful. Goethe ascribed the faulty passages in Schiller to his occasional attacks of disease; these, therefore, he denominated “the *pathological passages of Schiller*.” Duroc, who fell mortally wounded at Napoleon’s side, derived infinite satisfaction from the sympathy and from the words of the agonized Emperor: “Duroc! there is another world, where we shall meet again!” Every candid physician must acknowledge the therapeutic benefits derived from the Christian philosophy, in clinical practice.

Death may result from the influence of mere imagination. A striking example, with the names of the parties, is given in a recent number of the London Quarterly Review: Two profligate individuals, whose high positions in the religious community at Rheims, gave to their words

and actions great authority, called at night upon a religious woman, and, in a jest, "exhorted her as a person visibly dying. While in the performance of their heartless scheme, they whispered to each other, she is just departing—she departed in earnest. Her vigor instead of detecting the trick, sank beneath the alarm, and the profane pair discovered in the midst of their sport that they were making merry with a corpse."

The mind sympathizes with the body, throughout the course of most diseases, and the closing scene is frequently attended with, not only weakness, but derangement of the intellect. The ideas expressed, in the delirium at the closing scene, are generally those most habitual to the personal pursuits of life. "Dr. Armstrong departed delivering medical precepts. Lord Tenterden, who passed straight from the judgment seat to his death bed, fancied himself still presiding at a trial, and expired with, *Gentlemen of the jury, you will now consider of your verdict*; Dr. Adam, the author of the Roman Antiquities, imagined himself in school, distributing praise and censure among his pupils: *But it grows dark*, he said; *the boys may dismiss*; and instantly died." I could add many examples of a similar nature, which have fallen under my own observation. In not a few cases, the last sayings of the dying are incoherencies, uttered without a consciousness of their import, being wise only by habit, and by accident. "De Lagny was asked the square of twelve, when he was unable to recognize the friends about his bed, and mechanically answered *one hundred and forty-four*." The last words of Napoleon were "Tete d'armée."

Independent of experience, the physiologist cognizes no inherent necessity in life itself, nor in its organized forms, for a catastrophe so melancholy as death—so little analogous to the teachings of the material universe, wherein stability reigns, or varies only in constantly recurring cycles. The stream of life still debouches in a tenebrious realm, as in the days of the fabled Nox, Mors, Somnus, and Styx.

How transient is human life, compared to that of a tree!—There are cedars on Mount Lebanon, that had already flourished several centuries before the Christian era began. There is a sycamore on the Bosphorus, 4,000 years old. There is a yew tree in England aged 2,880. De Condolle mentions trees aged from five to six thousand years—contemporaries of Adam, if the Usherian chronology be correct.

If the doctrine of animal perfectibility—if new organs can be acquired in consequence of mere desires and wants; and if it be impossible ever to lose these organs and faculties, so acquired, as contended for by Lamarek, the prolongation of life to an indefinite extent is a possible event. To these visionary theories, this great writer devotes the first volume of his Natural History. His argument, however, is one of much ingenuity.

I may be permitted to say, though, perhaps, in repetition of what I may have already said, that the natural history of death is a most luminous point of departure for the illustration of the science of life, or biology, as it is most appropriately called; that is to say, the progress, and the order in which the tissues, and, consequently, the functions, die,

serve to dissect, to analyze, and establish certain laws of vitality. The great idea of Bichat's General anatomy, that of resolving the body, with its organs, into its elementary tissues applies here, though, strangely enough, Bichat himself failed to use it in his book on Life and Death; for, instead of tracing death in its natural order, in the tissues, he divided it into three varieties, namely: death in the brain, death in the heart, and death in the lungs; a topographical arrangement at war with his brilliant conception of tissues, which formed a great era in science. Different systems, as the nervous, the capillary, the muscular and the like, have vital functions or laws of peculiar nature, which die in a peculiar manner, or at least, in different times. Hence nutrition, respiration, calorification, circulation and muscular motion, cease not simultaneously. In some cases, one tissue or function is disordered, or devitalized, in advance of its associated tissues and functions. Suppose the blood to be (as indicated in the Pentateuch) a vital fluid.* Might it not die in advance of the nerves, or the muscles? and, so of the rest. I will further add, (having omitted the statement in the proper place,)[†] that the thermometer is a test applicable to the condition of the blood, with reference to its vitality: blood wholly deprived of vitality, or to speak without any theoretical opinion, blood that has underwent refrigeration; that is to say, blood just taken from the arm in yellow fever, inflammation of the lungs, and the like, will resist the physical law of refrigeration much longer than blood taken in like manner, provided that it has been once refrigerated, and, then, *reheated to the same temperature*. The experiments on this subject, which I published many years ago, though few in number, clearly prove this; but it is my intention to repeat them for the greater certainty, believing them to be new in plan and execution, as well as important in determining the physiology of the blood, particularly in reference to its *vitality*, and the resulting argument that might hence arise, in favor of its *self-locomotive power, &c.* If the blood recently taken from the body, has in any degree, the independent power of resisting the surrounding atmospheric temperature, it possesses, in that case, one of the most remarkable proofs of vitality, being, of course, independent of nervous, respiratory and the other influences of the organs. Bichat, (not to name others) makes this calorific independence, the characteristic feature of life. (Anat. Gen. T. I., 521.)

I will add, as the result of experiment, that death, in the ordinary sense, does not destroy an infusorial animal, which, so far as I have examined, constitutes a great proportion of all animal and vegetable substances, including the proper infusoria of authors. This animal is seen only in the sun-light, and by microscopes of very moderate powers; boiling, and heating, and the desiccation of thousands of years, do not impair its activity. All animal and vegetable substances that can be

* When I was admitted a member of the Medical Society of Baltimore, I was required to defend, orally, the doctrine of the vitality of the blood, which, at that time, was contrary to my own opinion; but at the close of the evening's debate, the majority decided in favor of the proposition which I had reluctantly advocated.

† This, (like nearly all of my papers) was written in fragments, one portion having been in the printer's hand, while another remained to be written.

dissolved, will afford this active infusorium. It is probable that it neither grows, nor dies; at least, all of the family are alike in appearance, and it is probable that shells, and some fossils, contain this animal in the living, but, necessarily, inactive state. Diminished cohesion of the intermedium in which they are imbedded, (when so'id,) that is, solution, is the essential condition, without which their motion is impossible, for physical reasons.

Finally, although it is idle to discourse of the certainty of death, since it is of all things the most certain, there is however, one transcendental view, or possible fact, in its natural history, which the progress of the science of life may possibly reveal with a certainty, that would greatly affect the mental, moral, social, and physiological conditions of mankind. Judging from the progress of modern discovery, precluding, as it does, other greater discoveries, it might possibly happen, that the fundamental laws of life, and organization, with their essential conditions and ends, shall be discovered, so that the duration of life might be ascertained before hand.

The finalities or purposes of vitality—its reproductive power, supplying, in some animals, entire limbs and organs that had been accidentally lost—its definite cycles, as in gestation—its symmetrical development—its variations within the limits prescribed by a marked unity in groupings—its multiformity within the oneness of the archetypal form—its peculiar manifestation in each tissue, and its totality in the entire organization as influencing sensation, locomotion, circulation, respiration, nutrition, calorification, and the like, have all been more or less illustrated by the rapid advances of modern investigation. A few months ago, a painless amputation would have been regarded as impossible as the discovery beforehand of the very hour of natural death, as resulting from the laws of life and organization, under the influences of age, or morbid action,

Hence the solution of the problem of life, in its details, comprehends the duration and termination of life—the period when the candle of life shall burn out, when the vital capital shall be wholly expended. Unhappy will it be for the physiologist, if on entering the penetralia of life, he shall there read the very hour of his own death, inscribed on its structures; that hour,

“When the wheels of life at last stand still,
Like a clock worn out with beating time.”

Happily for mankind, science has not yet made that paralyzing discovery.

Addendum, illustrative of the supposition that the heart's action may be temporarily suspended, without actual death: Mr. John Hunter, the celebrated surgeon, long before death, had, according to his own statement, (confirmed by his medical attendants, Sir George Baker, and Doctors Wm. Hunter, Huek, Saunders, and Fordyce,) an alarming spasmodic attack, in *which the heart's action entirely ceased for three quarters of an hour*. “This curious fact in physiology, says his biographer, has never been satisfactorily explained.” Mr. Hunter's intellectual powers remained unimpaired. He sustained his respiration by forced, or rather voluntary efforts.

Addendum on the subject of rigidity :—Rigidity, as a criterion of death, is inconvenient in practice, as it may be tardy in its appearance, and occasionally absent, or of very short duration. Hence its verification requires the constant presence of the physician; otherwise, it might appear and disappear, during a short absence from the corpse, throwing doubt on the certainty of the death, and causing delay in the burial. Still, however, it is a sign of great value, and the manner or order in which it disappears is highly characteristic. The suppleness or relaxation of the muscles very generally take place first in those parts that were the first invaded by the rigor mortis, as, for example, in the neck. Rigidity is liable to other objections; it may be simulated; it may originate mesmerically, and convulsively.

V.—*Case of Extra-uterine Fætation—Operation of Gastrotomy—Recovery.* By WILLIAM FINCH, M. D., of Rusk, Cherokee County, Texas. December 10th, 1849.

DR. A. HESTER—*Dear Sir* : The following described operation may be interesting, as illustrating the real dangers following the operation of Gastrotomy, and at the same time, serve to incite practitioners to perseverance in apparently hopeless cases. I give the case without further comment.

The subject was a colored woman, Fanny, æt. twenty-four years, belonging to A. Killough, Esq., of Mound Prairie. History: From the best information Fanny was first pregnant at the age of fourteen years.

During the fifth month of utero-gestation, while ploughing, she was struck with the plough handle in the right hypogastric region, which caused her to miscarry, and has ever since complained of pain, occasionally in her right side.

1848, Sept. 3d.—Was called to see negress Fanny—found her afflicted with general anasarca—two months advanced with her second pregnancy.

1849, Jan'y. 3d.—Was called to see patient, supposed to be in labor; anasarcaous swelling had disappeared; found her suffering with severe pain in the hypogastrium, increasing in severity, not true uterine contractions. Upon examination per vaginam, no os uteri could be touched with the index finger; tumor was high up.

I decided that she was not in labor, and told them to wait till her full time.

As time advanced, I frequently heard of Fanny's sufferings. A mid-wife was in nearly constant attendance, but, to their great astonishment, no delivery could be effected.

About her tenth month, it was reported that her physician had made an incorrect diagnosis. The midwife, friends, and patient all concurred in pronouncing it *dropsy*, and gave a very unfavorable prognosis.

Upon hearing so obnoxious a report, I rode to see the patient; found her in deep despair, greatly emaciated; complexion of an ashy hue.

Upon examination per vaginam, I found the tumor low down; by trying to encircle it with the index finger, I discovered abnormal appearances, adhesion of the uterus to the right side, occasioned, no doubt, by the blow from the plough handle; found the fœtus dead, informed the friends that I believed it to be a case of ventral pregnancy, and recommended an operation as the only mode of delivery.

My recommendation was not conceded to; I repeated my request to operate at sundry times, but there was no acquiescing.

Aug. 6th.—Was called to see patient, found her *reduced to the very verge of the grave*. I was told that there was no objection to my operating, now thirteen months since her conception.

I informed them that an operation was a doubtful remedy at this late period, and during this extreme warm weather. But death to the patient was certain without an operation.

Aug. 9th.—Met Drs. Luster and Black in consultation, who sanctioned the operation.

Aug. 12th.—Met to operate, assisted by Drs. Luster and Wood. In the absence of chloroform, I used the letheon; owing to the weakness of the article it did not produce complete anæsthesia, but patient was brought sensibly under its influence.

Operation was commenced by introducing a sharp pointed bistoury per vaginam, made a transverse incision three and a half inches in length, through the elongated parietes of the vagina, which were stretched across the pelvic cavity. I examined through this incision with my finger, (keeping in mind Dr. Mott's maxim, that when an operation is well done, it is done quickly enough,) found the fœtus enclosed in a sac, through which I made a like incision, giving exit to a vast quantity of ill conditioned purulent matter, which was excessively fœtid.

The cranial bones were extracted separately, with forceps. Seeing the patient now exhibiting symptoms of approaching death, with one unceasing effort I brought away the remainder of the fœtus. The patient was soon resuscitated, and appeared comfortable.

The fœtus was of the full size and well formed. This pathognomonic sign gave satisfactory evidence of the correctness of my previous diagnosis.

The placenta and funis umbilicalis, I presume, were dissolved in the pus, of which there was a great quantity.

Aug. 13th.—Patient slept well last night; reports herself very much better; pulse 100, and feeble; gave opium and calomel at bed time.

Aug. 14th.—Patient rested well last night; about three o'clock, p. m. taken with a fever, pain, swelling and great heat about the abdomen. Applied the cold water dressings; calomel and opium repeated.

Aug. 15th.—Patient rested well; fever abated; ordered low diet; calomel and opium at bed time.

Aug. 16th.—Patient was taken with fever last night, attended with symptoms of inflammation; ordered the cold water dressings; low diet; patient kept cool; room well ventilated; medicine the same as last night.

Aug. 17.—Patient improving; fever abated; treatment the same.

Aug. 18.—Patient convalescing; medicine discontinued.

Aug. 19.—An ulcer appeared on the sacrum, presenting an ugly appearance.

Aug. 20.—Extensive sloughing from the sacral bones and contiguous parts, which required several weeks treatment to restore to a sound condition.

Thence followed paralysis of the lower limbs, which required a protracted treatment to restore to action. The patient is now (four months since the operation) going about perfectly well.

V.—*A Case of Malformation.* By WM. A. BOOTH, M. D., of Louisiana.

DURING the night of March the 18th, 1849, I was called to see an infant just born. The following is a transcript of the impressions noted at the time: "The child is an hermaphrodite; the labia externa are distinct and far apart; between them projects very plainly, and somewhat larger than usual, the extremity of the urethra, through which, in a few hours after birth, urine was discharged.

There was no vagina and no anus; the penis appears rather long and large for the age; it seems, too, more like a part of, or a projection from, the scrotum than is usually the case; the aperture at the end is perfect; it could not have been told beforehand, through which urethra the urine would pass. The scrotum seems filled with testicles. I can not, however, find out the mediastinal line; it is closely contracted around its contents, which are comparatively large. The integument of the penis and scrotum is blood red, and looks as though it were raw, and would be tender to the touch, but it is as tough as is customary. These organs are placed rather high: the lowest portion of the scrotum reaches nearly to the upper part of the female urethra; they issue from the abdomen just below the umbilicus, and lay upon it: with the exception of their position and color, there is nothing about them sufficiently peculiar to attract special attention, were it not for the female organs.

The infant weighs 4½lbs, clothes included. The clothes would weigh ½lb. It is the most sprightly looking child I have ever seen at birth.

Two of its toes have grown together. With this exception, and those previously specified, it is properly formed.

20th.—The fœces pass through the penis; they are a green, slimy fluid; this is discharged in small quantities, almost constantly; each stool is preceded by the usual straining. The child begins to look jaundiced. An intestine begins also to project back of, and beneath, the scrotum.

22d.—Dr. B. F. Halsey accompanied me, and we determined to perform the operation for imperforate anus. I inserted the blade of a thumb lancet its entire length, and then a female catheter; only a drop or two of blood followed. The catheter passed up four inches, but no fœces returned with it; a tent was placed in the opening. The catheter was inserted twice more, but could not be introduced so high by 1½ inches, although the lancet was again used.

No effect followed from the operation. The scrotum was gradually distended by the descent of intestines, until it became a round tumor, having lost all its primitive peculiarity of shape. Blood was occasionally discharged from its lower part. The stools continued as before. The sufferings of the child, which were great and constant, were mitigated by the free use of paregoric, or morphine, magnesia, &c.

27th.—At five o'clock it died, having become perfectly yellow. Three hours afterwards, as the parents would not consent that it should be preserved, I began a post mortem examination. This revealed the error of my first impressions.

There is neither penis nor scrotum. The extremity of the supposed penis is the end of the rectum; the integument is merely thickened peritoneum; the corrugated appearance had been effaced, previous to death, by distention. All the large intestines are within this sac. The small intestines are within the abdomen; they communicate through an aperture in the abdomen just below the navel. The alimentary canal is empty; the child died of inanition. It sucked at first quite well occasionally; during the last few days of its life it had refused to do so entirely, and had taken nothing except the little which was forced down by the spoon. The liver is perfectly formed, but very large; it extends entirely across the diaphragm, pressing the stomach to the left side. The spleen is rather small, and lies below the left extremity of the liver.

I find but one kidney; the bladder is high; the urethra is very long and large; the vagina is a *cul de sac*, about two inches in length; its substance is gristle; a hollow the size of a bodkin runs through it; the upper end rests upon two ovaries or testicles. The lower end terminates between the labia externa. The testicles or ovaries lay upon the top of the sacrum. They are destitute of integuments. There is no womb. The intestines do not descend into the pelvis; the lancet consequently did not reach them.

TRIBODAUX, December 10th, 1849.

VI.—*Report on the Diseases of Selma and its Vicinity, (for the current year,) read before the Alabama State Medical Association at Montgomery, in December, 1849.* By A. G. MABRY, M. D., of Selma, Ala.

(Published by order of the Association)

Many cases of slight indisposition and unimportant deviations from health, about which we were consulted and for which we were called on frequently to prescribe during the period embraced in this report, are not mentioned. Important and leading diseases only were deemed worthy to demand the attention of the Association.

Many of the cases each month ran into the succeeding months, so that really more were treated every month, except January, than are mentioned.

As usual, pneumonia was frequently met with during the cold and variable weather of the winter and spring, and one case of bilious pneumonia occurred as late as June. This was well marked in all its features, and proved fatal. It is unnecessary, as it would be inconsistent with the character of a report like this, to undertake to give a particular description of a disease so well known, and whose character is so well understood by the profession as that of pneumonia.

Its peculiarities as observed here are what we are principally interested in. Some of the cases were ushered in by a distinct chill, followed by fever, which intermitted or remitted each twenty-four hours, and required the use of quinine in the treatment. Vain were all our efforts to subdue the inflammation, until we had first subdued this periodic tendency by the free and liberal use of quinine.

Though we might to some extent succeed in subduing the inflammation, yet at each return of the fever the flame was sure to be rekindled, and the inflammation lighted up anew.

In other instances the fever was continuous, and often, when so, exhibiting a well marked typhoid character. When the attending fever assumed this character the use of quinine was of no avail whatever in the treatment, if its use was not positively hurtful. The febrile reaction was never of a high grade; the general tendency seemed always towards prostration or collapse, and consequently depletion could not be resorted to in the treatment.

The signs of biliary derangement were almost universally indubitable; but this derangement was functional rather than organic. Sometimes the pulmonary inflammation would supervene after the existence for several days of an intermitting, remitting or continued fever. At other times the inflammation would manifest itself for hours before the development of any fever whatever. Then again, fever, gastritis, enteritis and inflammation of the lungs would be so mixed up together as to render it difficult to determine which was the antecedent, which the original disease, and which the complication.

When administered early, emetics were found useful, but if delayed till the inflammation was fully established, they seemed to exert no bene-

ficial influence whatever. Calomel, opium and ipecac in small and frequently repeated doses, followed every twenty-four hours by a light dose of castor oil, or some other mild laxative, if the bowels were not sufficiently acted upon by the calomel, with the following as an expectorant : tinct. lobelia, syrup squil. a a ʒi , paregoric and emulsion gum arabic, a a ʒss . m.: dose, a teaspoonful every two or three hours in some demulcent drink, constituted the internal treatment which was mainly relied upon. This, of course, was varied and modified according to the particular circumstances attending each case. The calomel was not given with the view of producing ptyalism; this condition was hard to induce, and when it did come on, seemed in itself to exert no power in arresting the disease. Cups frequently and freely applied to the chest were always useful. They were applied daily for the first few days and their application followed by hot stimulating poultices. After the first few days, blisters were drawn and kept discharging till the termination of the case.

The skin was often cool and moist; the pulse frequent and small, or frequent, full, soft and compressible.

In this condition of the system no debilitating remedies could with safety be used; even lobelia was inadmissible, and tartar emetic out of the question, in consequence, not only of the strong disposition of the system to run into collapse, but the proneness of the stomach and bowels to take on inflammation. In this condition, calomel and opium, with the external applications, constituted the means upon which we were mainly forced to rely.

When the skin was hot or moderately warm, and the pulse full and strong, the use of the lobelia combined as above rarely failed to reduce both and bring about a better condition of the system. This plan of treatment, necessarily detailed in a general and summary way, was in a high degree successful; a very small proportion of the cases having proved fatal.

Bowel affections were unusually prevalent. It was no uncommon thing to meet with gastritis, enteritis, dysentery and diarrhœa in an independent form, but one or more of these was frequently superadded to the other diseases prevailing here at the time; complicating them and rendering them much more unmanageable. In the table no notice is taken of these affections when they existed in connection with other diseases; they were, therefore, much more prevalent than would appear from an inspection of the table.

Cholera Infantum was more frequently met with, and was far more obstinate, and more unmanageable than it had been known to be for several years past.

Trismus nascentium was, perhaps, not more common than usual, but when it did occur, I believe it always proved fatal. I have seen cases of this disease occasionally for several years past, and recollect of no instance where recovery took place.

Its cause to my mind is yet shrouded in mystery. In no instance have I been able to discover any displacement of the cranial or verte-

bral bones, and whilst I am willing to admit that such displacement is altogether sufficient to produce the result which has been claimed for it, I must therefore conclude that this is not the only cause of the disease. Equally fruitless have been my efforts to discover anything in the condition of the navel which would account satisfactorily for the result.

Typhoid fever has been known to occur here every year for several years past. It is becoming more and more common annually, and I am much inclined to the opinion that it is gradually taking the place of of intermitting and remitting fevers, and will ultimately become, as they have been, the prevailing fever of our State. This opinion seems to be entertained universally by the professional friends with whom I have conversed upon the subject. In the early history of our State, whilst intermitting and remitting fevers prevailed to a fearful extent, typhoid fever was almost unknown; and now whilst they are much less frequently met with, it is steadily on the increase. As seen here, it answers well the description given of it by Prof. Bartlett, in his recent work on fevers, and need not be described in this report. It very often stamped the impress of its own character upon the features of other diseases, and, like the bowel affections, occurred more frequently than might be supposed by reference to the table.

The diseases this year often presented a strange intermixture of character. It was not uncommon to see patients with intermitting fever and dysentery, at the same time, each requiring the same treatment that would have been proper if only one had existed.

Such was the case, also, with intermitting fever and pneumonia; with intermitting fever and gastritis; with typhoid fever, pneumonia and gastritis. To account for these occurrences, we must suppose either that one cause or combination of circumstances is capable of producing in one individual intermitting fever, in another typhoid fever, and in another pneumonia or gastritis; or, again, in another two or more of these at the same time; or that each one of these is the result of a distinct and independent cause or combination of circumstances, and that this cause may either act alone, producing its own specific effects, or that it may act at the same time upon the same individual with another cause, and each produce its own specific results, and so establish two diseases in the same system at the same time. The latter seems to me to be the most reasonable supposition, and if it be true, then we must conclude that many causes of disease have existed here this year, and sometimes they acted separately and alone, and at others together upon the same system, producing two distinct and independent diseases.

The first case of congestive fever which came under my observation this year, occurred on the 14th of August. It was a well marked case, and made its attack upon a child three years of age. There is no publication upon the subject with which I am acquainted that fully coincides with my views in regard to it, and I hope a few observations upon the subject will not be deemed out of place here. The views which I shall now present are those somewhat modified which I presented to the Alabama Medical Society in December, 1845.

This, like all the other idiopathic fevers, is a general disease; it is the lowest grade of fever, and is continuous in its course. I say it is continuous, because I doubt the propriety of confounding what is termed congestive intermittent with congestive fever. It seems to me more proper to consider the intermittent the original type, with the congestive element superadded. With as much propriety might typhoid pneumonia be considered typhoid fever, as congestive intermittent congestive fever. The relation of the one to the other is the same in both instances.

The child above referred to, without giving previous signs of indisposition, was observed by its mother, on Sunday night, to be sick, and when examined it was found that her head and trunk were hot, her extremities cold or cool; she was restless, thirsty, and her stomach was irritable. She continued in this condition pretty much through the night, but was cooler in the morning and thought to be better. An attempt was now made by the parents to give her some medicine, which was soon ejected from the stomach. From this time the symptoms become more and more aggravated. The heat of the surface seemed unequally distributed; the extremities being cold whilst the head and trunk were hot; though the temperature here gradually diminished until the coldness became general. The pulse was small, feeble and exceedingly frequent; she had great thirst, and her stomach rejected every thing that was presented to it. The coldest ice water could not be retained beyond a few minutes. She spent a restless night, assuming every possible position, but retaining none beyond a few minutes. Occasionally she seemed to sleep, but was never quiet. Her thirst was incessant and tormenting. She would seize fluids of any kind with eagerness, and swallow them with the greatest avidity.

Notwithstanding the most persevering exertions to produce reaction, she was several times during the night without a pulse at the wrist. Her skin was cold and pale, and presented a mottled appearance; her lips were white and her ears seemed to have no blood in them, and her tongue was moist, coated with a thin fur. By sunrise the third morning, she seemed more quiet; reaction had partially occurred, and she continued more comfortable during the day, and was not so restless at night. The fourth morning reaction was completely established, and the further treatment of the case gave little trouble.

In the adult the symptoms differ little from the above. The patient will in some instances complain for several days of indisposition; of languor, loss of appetite, &c.; he presently thinks he has a chill, but no reaction follows, and his skin soon becomes cold and bathed in a clammy perspiration, whilst he complains of great heat, and says he shall burn up, and obstinately refuses to allow the covering to remain upon him. He drinks water almost incessantly, and throws it up almost as soon as it is swallowed. His pulse is small, feeble and frequent, ultimately disappearing altogether at the wrist, and often many hours before dissolution takes place. He is restless, and tosses from one side of his bed to the other, and is desirous of changing from one bed to another, and even to take refuge in an other room.

His respiration is hurried and laborious, and he impatiently demands fresh air. His tongue will be found coated and his bowels may be constipated, or he may have a distressing and troublesome diarrhœa. Occasionally blood is discharged from the bowels, and sometimes it is ejected from the stomach.

In some instances the individual is taken in the midst of apparent good health, and falls suddenly wherever he may happen to be at the time he is seized with the attack, and when discovered is insensible to every thing that is passing around him, and will bear what in health would be torture without exhibiting any evidence of consciousness of pain.

The skin over the head and trunk may be warm, and even that of the whole body at first may be so, but it speedily begins to decline in temperature, and sooner or later sinks into that cold, clammy condition so characteristic of congestive fever. The respiration is at first easy and natural, and the individual resembles one in a quiet sleep. The pulse is feeble and at first not much accelerated; the pupils natural, or but moderately dilated. This condition may continue for a few hours, or a day, or even longer, and consciousness return and the patient be restored to health. But too frequently the reverse is the case; the severity of the symptoms become more and more aggravated, and the individual sinks into a profound and hopeless prostration, from which there is no recovery.

The tongue is never dry; it is uniformly moist; sometimes it is but slightly coated, at others it is coated, at others it is covered with a thick brown or white fur, and very generally seems enlarged, and when protruded, spreads out over the teeth and extends from one angle of the mouth to the other. It is, I believe, always pale. The skin never fails to become cold to the touch, and is pale, and frequently presents a mottled appearance, owing to a want of arterial blood probably in the superficial capillaries, and the opposite condition of the capillaries of the venous system; sooner or later, it is bathed in a profuse perspiration. The pulse never fails ultimately to become frequent, small and feeble, and generally disappears at the wrist, hours before death occurs. The action of the heart has ever seemed to me to be feeble; it acts quickly but feebly. The respiration at first may not be much disturbed, but it usually becomes hurried and difficult. The countenance wears an expression of great anxiety, but it is an anxiety which concerns the patient's present condition, and has no reference to the past or the future.

There is great restlessness; and the muscular strength is preserved to a remarkable degree. When insensibility is not present, the intellect is always clear and unclouded. If delirium occurs at all, it is in the latter stages of fatal cases. Pain is rarely ever complained of, but a sense of great heat and a thirst that cannot be satisfied torments the patient to an almost insupportable degree. Though there is sometimes constant nausea, yet occasionally the stomach will reject almost immediately whatever it receives, without previously giving a sensation of much nausea. The condition of the bowels is not uniform, and the urine is by no means abundant. This disease is rapid in its course; usually terminating on the third day, though I have known cases to con

tinue much longer. There is no appearance of intermission in it; nor of remission, except what may be accounted for by the diurnal changes which take place in the system itself. Judging from my own observation, I am bound to say that periodicity is not a constituent element in the disease itself.

This disease is strictly adynamic in its character, and it seems to me that the whole morbid phenomenon depends upon the loss of power, or the want of a due degree of energy in the source from which the organic functions derive their impulse, and the organs the power to maintain the healthy action. This source is now generally, if not universally, admitted to be the ganglionic or sympathetic system of nerves; this system of nerves bearing the same relation to the organs and functions of organic life, that the cerebro-spinal system does to the function of animal life, or the spinal to the motive power of the body.

The distinct and independent action of these two great systems of nerves is rendered probable, and I might with propriety say proven by natural as well as morbid phenomena. In sleep the functions which depend upon the influence of the cerebro-spinal system, namely, perception, expression and locomotion, are quiescent.

The individual is perfectly unconscious of the relation subsisting between himself and the objects which surround him, and of his own existence. And yet the functions of organic life are performed just as if he were in the full exercise of perfect consciousness. He breathes, the heart beats with its wonted regularity, and the blood circulates with unobstructed freedom, and flows on to every part of the body. Digestion and the reparative process go on, and secretion and calorification are undisturbed. So it is under the action of narcotics and when, from accident or otherwise, heavy pressure is made upon the brain. In chorea it cannot fail to be perceived, that the function or power of volition is disturbed or wholly destroyed, whilst the functions of organic life are in a healthy state, or deranged to a very limited extent. In tetanus, I have seen the jaws immovably fixed, and the most powerful spasmodic contraction of the voluntary muscles and rigidity of the extensors producing opisthotonos, with pulse undisturbed, and no appearance of any derangement of the organic functions. This was the result of direct irritation upon the extremity of one of the spinal nerves by the presence of a foreign body accidentally placed in contact with it.

On the other hand, I have oftentimes seen cases of what is termed congestive fever where the individual preserved his intellectual power and his muscular strength up to the moment of dissolution, when for hours his skin had been to the touch almost as cold as ice and bathed in a clammy sweat, and a total absence of pulse at the wrist. In these cases there seemed to be no disturbance of the cerebro-spinal system of nerves, or the functions over which they preside; nor do I believe that it is necessary for the complete development of a true case of congestive fever that they should be so. Often in the progress of cases, and not unfrequently at the very onset, however, the brain does suffer; but this is a sequence and should only be considered a complication. From the symptoms detailed, it will be seen that all the organic functions are de-

ranged. The circulation is oppressed; the temperature of the whole body reduced, and the heat irregularly distributed; the respiration oppressed, and the secretions deranged: and without the derangement of these functions there can be no case of congestive fever established.

By the depressing influence of some poisonous agent, whether it be a positive principle in the form of a gas arising, as is supposed, from vegetable decomposition floating in the atmosphere, or a negative condition, the result of changes in the temperature of the atmosphere, or a disturbance of its electric condition by the change of form which matter undergoes in extensive decomposition, or its hygrometric condition, the morbid impression is made primarily and essentially upon the sympathetic system of nerves, its energy depressed, and the organs thereby deprived of that due degree of nervous influence necessary for the performance of their respective functions in a proper manner, and disease is the result, and a chain of morbid phenomena present themselves to our view which we are accustomed to designate congestive fever.

The heart, no longer receiving its usual excitement, loses its power to act with a force sufficient to urge the blood forward to the remote parts of the body; its contractions are quick and imperfect, and the blood is not therefore entirely expelled from its cavities, and it accumulates there, and in the large vessels and in the lungs; a limited amount reaches the surface; the arteries, by means of their elastic property, contract upon the small volume which they receive, and hence the smallness and feebleness of the pulse as felt in the arteries of the surface.

Little else than the most fluid part of the blood reaches the extreme arterial and capillary vessels, which may well account for the profuseness of the perspiration, or the superabundant exudation of the serous part of the blood.

The laborious and difficult respiration may be accounted for and explained by referring it to the absence of a proper degree of nervous influence and the consequent want of power in the muscles of respiration fully and regularly to expand the chest, and the undue accumulation of blood in the lung, preventing the free ingress of air. It is a well known fact that the brain requires the presence of the blood to stimulate it, and to support its healthy action. To afford this support it is necessary that it should be received in sufficient quantity, and that it should be of a healthy quality, and when stupor or insensibility are observed in cases of congestive fever, the condition is attributable to the absence of blood and the want of its natural stimulant, rather than to any undue accumulation and consequent pressure upon this organ. These cases occur suddenly, and usually after the erect position has been maintained for some length of time, and are somewhat similar to the condition of the brain in syncope. If I am correct in supposing that in consequence of the feebleness of the heart's action, the blood fails to reach the brain and other remote parts of the body, as in health, and accumulates about the heart, in the great vessels and in the lungs, we must reject the prevailing opinion of congestion in the brain; an opinion which no circumstance which I have observed in such cases will support. When delirium occurs, it comes on late in the attack, after the blood has under-

gone a change of quality by the want of oxidation, and is no longer fit to afford a natural and healthy stimulation to the brain. This is not unlike what is observed in anemia and marasmus. The retarded circulation in the lungs necessarily arrests, to no inconsiderable degree, the combination of the oxygen of the air with the carbon of the venous blood, and if it be true, that the development of animal heat depends upon this union, the extreme reduction of the temperature of the body may, with propriety, be attributed to this link in the morbid chain; in any event, if we are thrown back upon the function of innervation to account for the phenomena, we still have ground sufficient to stand upon in defence of the position assumed.

In this way, I conceive, may all the symptoms observed in congestive fever be accounted for and explained, either directly by referring them to depression of the energy or power of the ganglionic system of nerves, or indirectly by referring them to the feebleness of the heart's action.

Regarding the diagnosis, I am inclined to think that the history of the attack, the coldness of the skin, its paleness, the profuseness of the perspiration, the restlessness, the feebleness of the pulse, or the absence of the pulse at the wrist, the great thirst, and extreme degree of heat which the patient never fails to complain of, together with the preservation of muscular strength to a degree inconsistent with the general aspect of the case, will readily serve to distinguish this from other forms of fever.

The only two diseases for which this is liable to be mistaken are pernicious intermittent, or, as it is here called, congestive chill, and bilious remitting fever. From the former, I conceive, it differs in several very essential particulars. In pernicious intermittent, its paroxysmal nature is well defined and preserved at least for two paroxysms. Cases to the contrary of this are very rare. The cold stage is exhibited in an evident manner by the patient's complaints of coldness, and his urgent demand for covering; the hot stage, though tardy in making its appearance, does come on, and is well developed, and in due time followed by the sweating stage, and ultimately by an intermission more or less complete. This is repeated at least twice, but generally the third paroxysm the patient falls into a state of collapse; a condition which very much resembles congestive fever, but it is a condition differing scarcely at all from collapse produced by other causes, and may be understood by the previous history of the case. There is not that restlessness and great heat which the patient never fails to complain of in congestive fever. In congestive fever there is no periodicity, and nothing of a paroxysmal nature observable. Independent of the characteristic features of congestive fever, there are some which belong to remitting fever, that are not seen in the former; in this, there is not that regular and well defined remission, and not that heat of skin and fullness and strength of pulse, which may always be seen in the latter. The tongue never becomes dry in congestive fever, but such is often the case in cases of remitting fever much protracted. Recovery from pernicious intermittent and remitting fever is slow and often much protracted, and serious consequences are apt to result; relapses and visceral obstruction and en-

largements are well known sequela to these forms of fever. Such is by no means the case in congestive fever: there is no disease, so far as my knowledge extends, from which convalescence is so rapid and recovery so complete. To-day a man may, as it were, be almost in the jaws of death, and to-morrow be almost entirely well.

Childhood, youth, manhood, and decrepid old age are, I believe, about equally liable to attacks of this disease. The helplessness of infancy, and the feebleness of old age, seem no more to predispose to it, than do the vigor and strength of manhood afford protection against it. Neither does color or sex in any way affect its occurrence.

Treatment.—If it is admitted that the physiology of the ganglionic system of nerves is independent, it seems to me, that we must assign it an independent pathology, and if so, equally independent therapeutics. Prof. Wood, in his classification of the *Materia Medica*, divides stimulants into arterial, cerebral, nervous, and cerebro-nervous; thus acknowledging a distinction between the great systems or classes of nerves. He defines the arterial stimulants to be, “medicines which excite the circulation with little comparative influence upon the nervous system.” It seems to me, that this class should have been assigned to the ganglionic system of nerves, for I cannot see how it is possible for a class of medicines to excite the circulation, without first making an impression upon the nerves.

In my view, these medicines excite the circulation through this system of nerves, and should be studied with direct reference to them. No one who has attempted to treat congestive fever, has not felt the want of something to excite the circulation; something to impart energy and strength to the action of the heart and arteries. Usually, all efforts are directed to the attainment of this end. Opium, in some one or other of its forms, whether it acts directly or indirectly, primarily or secondarily, upon this system of nerves, or upon the heart and arteries, it seems to me, has produced more beneficial results than any other remedy that I have ever known prescribed. The *sulp.* of morphine is my favorite preparation, and I usually commence the treatment by giving half a grain; and if this does not quiet the great restlessness in an hour, I give a quarter of a grain more, and repeat every hour until quietude is induced.

I allow the free use of the coldest spring or well water, or ice water, if it can be had. A course similar to the above was recommended by Dr. Bochette, of Columbus, Mississippi, some years ago. A small quantity of brandy in the dose of 3i or 3ij, in water, may be given every half hour; but I am opposed to the extravagant use of this article in this form of fever. Camphor, or carb. ammonia may be given in the dose of 10 grs. every two hours, and a blister drawn over the epigastric region. Bottles filled with hot water should be placed around the patient, for the purpose of imparting heat to the chilled surface, and frictions made over the surface of the extremities with some stimulating application; such as mustard, cayenne pepper, hot salt, &c.; or the lower extremities may be enveloped in hot stimulating poultices, whilst frictions are being made on the upper. When reaction is established,

everything else follows as a matter of course; but I consider it prudent, if not important, to use mercurials in the treatment, and generally give ten or fifteen grains of calomel with the first dose of morphine. This I do not wish to purge before reaction takes place; and if it should not do so after this occurs, I give a small dose of castor oil. This plan of treatment, imperfectly sketched, is far from being unsuccessful, though it must be admitted that it is not so perfect as could be wished. I am aware of the fact, that many intelligent practitioners place great confidence in the use of quinine in the treatment of congestive fever; but this, I must think, is a confidence misplaced. Some of the effects of quinine, if given in any considerable quantity, are a cold moist skin and a feeble pulse; these I have seen too often to doubt.

These are conditions which already exist, and which we desire to correct, and against which our most strenuous efforts are directed. Those who most warmly advocate the use of this article in the treatment of congestive fever, never give it alone; they always combine its use with opium, camphor, brandy, or some other article of the kind, but attribute all the good which results to that alone. This is at least not fair.

In congestive chills its use cannot be safely dispensed with; but I would give it not with a view of bettering the patient's present condition, but with the ulterior object of warding off the next paroxysm.

This report, hastily drawn up, with the accompanying table, are respectfully submitted to the Association.

Table of the Diseases which occurred in the practice of Drs. Fair and Mabry, of Selma, from 1st January, 1849, to the 10th December, prepared for the Alabama Medical Association.

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Part Second.

REVIEWS AND NOTICES OF NEW WORKS.

- I.—*On the Diseases of Infants and Children.* By FLEETWOOD CHURCHILL, M. D., M. R. I. A. Honorary Fellow of the College of Physicians, Ireland; Honorary Member of the Philadelphia Medical Society, etc., etc. Philadelphia, Lea and Blanchard, 1850, pp. 636.
2. *A Practical Treatise on the Diseases of Children.* By D. FRANCIS CONDIE, M. D., Secretary to the College of Physicians; Member of the American Medical Association; Member of the Amer. Philosoph. Society; Honorary Member of Philad. Med. Society. Third edition, revised and augmented. Philadelphia, Lea and Blanchard, 1850, pp. 703.

WORKS on the diseases of children are daily increasing, and it is to be hoped that so much talent and industry, expended on the subject, will enable the general practitioner to combat, more successfully than heretofore, the diseases of infancy. Statistics, carefully prepared, have demonstrated that nearly one half of the infants born, perish before they attain the fifth year; a mortality scarcely credible, did we not possess all the necessary data, from which to draw our conclusions. If life be so precarious in childhood, certainly, there must be a combination of causes, by which health is endangered and death brought about at this period of our existence, unknown later in the life of the individual.

On inquiry, such is found to be the fact; because many agents which are conceded to act injuriously upon the constitution of the infant, fail to excite diseased action in the system of the adult, or even in the adolescent.

M. Quetelett, who has written well on this subject, ascertained that in every *twenty-two* births, *one* was *still-born*, and that among illegitimates, the still-born are three to one greater than among the legitimate.

In Belgium, of the children born alive, *one-tenth* die the first month; in England and Wales, *one-third of the total deaths* occur *under two years of age*. These are startling facts, and Government should feel sufficiently interested to inquire into the cause of the mortality of children, more especially among the poor, on whom the misfortune falls the heaviest.

If we examine into the statistics which have been published on this subject, we shall find that between the children of the poor and those in easy circumstances; between the same respective classes in town and country, the difference in the mortality is very great—thus demonstrating that this discrepancy depends, materially, upon external conditions or circumstances, and may therefore be obviated, or removed, by enforcing hygienic regulations in the premises. Dr. Granville ascertained that among the children of the poor in London, 458, in every 1000, perished of sickness under two years of age. McClean states that at St. Kilda, *eight* out of every *ten* children die between the eighth and twelfth days of their existence; and he ascribes the mortality to the filth in which they live, and the noxious effluvia of their homes.” We might occupy half the Journal with comparative statistics and facts of this kind—all going to prove that filth, imperfect ventilation, and mismanagement, do more to shorten life, especially among children, than the whole catalogue of diseases embraced in all our nosological works. Do not these facts show the necessity of reform in the management of the rising generation of every country? And can it be denied that their health and their lives are, to a great extent, in our hands, and at our disposal? The reprehensible practice of crowding five or six children, even among persons in easy circumstances, into one small apartment—perhaps into one bed, is the source of much mischief, and the cause of many forms of obstinate diseases in early life. Like the tender and budding plant, infants require a constant renewal of fresh air and the light of heaven; for in the absence, or rather, if they be imperfectly supplied with two agents so necessary even to vegetable life, they, sooner or later, fall victims to wasting atrophy; insidious marasmus; exhausting lenteries, convulsions, or hideous scrofulosis. A better acquaintance with the principles of hygiene and the laws which govern the development of our organization, will do more to diminish the mortality among infants and children, than polypharmacy and all the science of therapeutics combined.

The sleeping apartments of children should, if possible, be located on the second floor; and fresh air should be permitted to enter in one direction, and the confined air allowed to escape in an opposite one; this should be so arranged as to avoid creating a current through the lower part of the room, as it might endanger the health of the little inmates. It is, we know, the practice with some parents, to close the doors and windows of the sleeping chambers of their children, under the erroneous impression that, without such precaution, they would “take cold.” Now, we have yet to learn that pure fresh air can give rise to “colds,” in a healthy individual; but if by close confinement;

want of exercise ; deficient ventilation, etc, we enfeeble the system, relax the skin and derange nutrition, the child will endanger its health by coming suddenly into the open, pure fresh air ; because a shock will be produced extremely detrimental to health. Another cause of mischief in the nursery, is the too common custom of building and keeping up fires, especially coal fires, in the bed-room of the child, under the erroneous supposition that if neglected, the child's health will suffer from the cold night air. The practice should be discontinued, as highly detrimental to the health and comfort of the child.

Much ignorance prevails in the hygienic management of infants, even among families and classes otherwise well informed ; but we have only adverted here to one or two facts connected with this subject, and must now pass on to the consideration of the subject matter in hand.

Dr. Churchill divides his subject, *first*, into the causes of disease during intra-uterine life, or immediately after birth ; *secondly*, into the management of infants and children ; and *thirdly*, into the diseases which are peculiar to, or very prevalent during childhood. (We are forced to tax our memory, as the work was *filched* from our office, by some person or persons unknown to us.) We had, however, given the book a partial examination, and can unhesitatingly commend it to the general practitioner for the sound doctrines and excellent advice it contains in relation to the treatment of the diseases incident to infancy and childhood. Compared with his works on medical subjects, this is equal to any, perhaps superior to his Treatise on the "Diseases of Females." We had intended to compare the views expressed and the principles avowed, in the two works at the head of this notice ; but the unexpected loss of one of these volumes, frustrates our design and compels us to forego a task in the performance of which we had promised ourself both pleasure and profit. In dismissing thus briefly the work by Dr. Churchill, we have done little else than allude to the three principal divisions of the subject adopted by the author. We therefore conclude by urging the work upon the attention of our readers, being satisfied, that it is well worth a careful examination, if not an attentive perusal.

The work on the same subject, by our countryman, Dr. D. F. Can-
die, has reached the *third* edition in a comparatively short time ; certainly presumptive evidence of its popularity as a work of much practical value. The edition now before us has been, we are told by the author, subjected to a careful revision, and a new chapter has been added on *Epidemic Meningitis*, an affection not confined exclusively to children, yet, as it has appeared more frequently among this class than among adults, it deserved, on this account, a special notice at the hands of the author. Every important fact that has been verified or developed since the publication of the previous edition, either in relation to the nature, diagnosis, or treatment of the diseases of children, have been arranged and incorporated into the body of the work ; thus posting up to date, to use a counting-house phrase, all the valuable facts and

useful information on the subject. Within the last few years, much attention has been given by writers to the management of children, and the treatment of their peculiar diseases. Hence, a better system of practice prevails in the community *than in former years*. Dr. Condie has labored to simplify and arrange the multitude of observations, both pathological and therapeutical, found recorded by writers in the standard works and medical journals of the day. He has consulted a large number of books, monographs, periodicals, etc., a list of which is added at the close of the volume, from all of which he has copied more or less valuable information. This required much labor; and the reader will find it instructive to refer to the list in perusing the work. To the American practitioner, Dr. Condie's remarks on the diseases of children will be invaluable, and we accordingly advise those who have failed to read this work to procure a copy, and make themselves familiar with its sound principles.

We deem it unnecessary to analyze any part of this work, and therefore dismiss it with the foregoing commendation.

Before we leave the subject of infantile diseases, we would call the attention of the reader to a certain peculiarity in these diseases, often observed in this latitude. We shall attempt to present an illustration. A child complains for several days of indisposition—bowels irregular, rather loose—appetite bad—digestion imperfect—restless—tongue coated—countenance palid, with more or less febrile excitement *during the nights*. You may resort to purgatives, emetics, tepid baths, etc., and the child becomes daily more feeble, with increased fever at night. Banish purgatives, and all other evacuant means, and administer a full dose or two of the *sulphate of quinine*, late in the evening, and you will certainly arrest the train of morbid symptoms, and restore the child to health. We cannot call it by any name as appropriate as that of *nocturnal* remittent fever. We have seen and treated a number of such cases, at nearly all seasons of the year, and the above treatment, where the brain was not the seat of disease, rarely failed to establish convalescence.

For a beautiful copy of Dr. Condie's work, we are indebted to Mr. Steel, 14 Camp street.

II.—*A Practical Treatise on the Diseases of the South.* By THOMPSON MCGOWN, M. D., etc., etc, 1849.

If books were like beef, to be disposed of by the pound, the author of the above treatise on the "Diseases of the South," might justly expect to receive a handsome sum for his four hundred and forty-one pages; but, thank heaven, knowledge being "power," and, therefore, abstractedly, imponderable, we are not called upon to furnish the read-

er with the exact amount of "dead-weight" comprehended in this *splendid* volume. We advised the author, who fore-shadowed the coming of the present work, in his pamphlet on "cholera," to suppress its publication; but to no purpose: he was resolved to write a book, and as "*physic* was his theme, he was sworn to print, be it right or wrong." Be it so; his book is now before the public, and as he has not adopted our advice, we shall examine his pretensions to authorship with that candour and impartiality becoming the position of an editor.

Dr. McGown is evidently ambitious: and for this we honor him, but as an author it is easy to find fault with him. With comparatively little experience (we believe he has not seen yet forty summers) in the treatment of the diseases of the South, he has ventured, nevertheless, to write on those diseases of which he can, from actual observation, know but little; a labor from which some of the ablest minds of the profession, in the South, have shrunk, appalled. So true it is that little minds do not hesitate to grapple with those subjects with which giant intellects fear to come in contact—

———"To rush in where angels
Fear to tread."

The author deprecatingly tells us, in an elaborate "Preface," that the book has not been prepared with that care and leisure he could have desired. The truth of this declaration will appear in the progress of this analysis; and the announcement is moreover superfluous, as the fact is self-evident in every page of the work.

A book is public property, at least in a critical sense, and the author whose sensibilities are vulnerable, and whose feelings are alive to the "*lethalis arundo*," should be careful of placing himself in such a position before the world as to have the first wounded and the second painfully excited.

Writing bad books may be appropriately compared to forgeries;—the authors rarely escape the punishment that awaits them at the hands of public justice.

But pardon this digression; we now direct the attention of the reader to the merits of the work in hand. After the "Preface," comes a score of "testimonials"—such as quacks obtain from credulous clergymen, all going to establish the reputation of the author, not only as a distinguished physician, able to cure all the ills of human flesh, but also to prove him a gentleman of excellent moral habits! Phœbus! what has an author's morals to do with his views of pathology, therapeutics, and the principles of practical medicine? We verily believe that Rhadamanthus, himself, could he escape to earth, might readily obtain a host of certificates of good moral character, from our clergy, particularly if he desired to deal in nostrums and quack medicines!

The "Table of Contents" embraces the following curious catalogue, and in the order hereinafter named: malarious diseases; intermittent fever—chills and fever; cachexia; tuberculous cachexia—consumption, etc.; serofula—rickets; chronic rheumatism; tabes mesenterica; chronic bronchitis; hæmoptysis, or spitting of blood; hydro-polyæmia—or serous polyæmia—treatment; dropsy—treatment of: enlargement

of the spleen and splenic cachexia; liver—chronic enlargement and induration of; nervous diseases—epilepsy, puerperal convulsions; atonic dyspepsia; leucorrhœa, or whites: chronic metritis; dysmenorrhœa, or painful menstruation; additional articles for the treatment of intermittent fever; congestive fever, or congestive chills; remittent fever; jaundice; yellow fever; acute rheumatism; typhoid pneumonia; diarrhœa and dysentery; Asiatic cholera; croup; elap or gonorrhœa. *Miscellaneous*; concussion, jar, or fall; incised wounds; lacerated and contused wounds; gun-cotton; collodion; worms in the alimentary canal; catarrh or cold; ephemeral fever; itch (scabies). The book closes with a glossary and index.

Many of the diseases, embraced in the foregoing list, are much more prevalent in the northern part of Russia, or of the United States, than in the South and South-West; and we are surprised that a work, purporting to treat exclusively of the diseases peculiar to this latitude, should give us long disquisitions on dyspepsia, metritis, rickets, cachexia, tabes, dropsy, clap, concussion, incised and lacerated wounds, gun cotton, etc., etc., whilst the author has strangely omitted to mention *tetanus*, *trismus*, and a long catalogue of affections, which, if not to the "manor born," are at least common complaints in the South! After stating this culpable omission on the part of the author, we would cheerfully dismiss the work; but least by steam or some "accident," it should be carried out of the State in which it was written, we feel it our duty, as a journalist, to allude to its deficiencies, if not to expose its errors, both on account of its style and the principles inculcated.

Between fifty and sixty pages of the work are devoted to *cachexia* and *tubercular consumption*; and yet we are told that the book treats of those diseases peculiar to the South!

We are constrained to admit that "*phthisis*" does prevail, to a greater or less extent, in all civilized communities; but can it be regarded as an affection peculiar to the South, as the great length of Dr. McGown's chapter on the subject would induce the *foreign* reader to believe?

To confess that we are disappointed with the work, is the expression of our honest opinion, and we feel satisfied that every intelligent *South-ern* practitioner will concur with us on this point. Matter was abundant,—facts, both curious and interesting, could have been obtained, in relation to the nature, species, character, and peculiarity of our diseases, which, had they been collected and arranged by competent hands, might have given us a volume of great value, and created a new epoch in southern medicine.

But instead of advancing the views and unfolding the principles which govern our practice in this region, the author has confined himself to some common-place observations on a class of diseases as rare, in this latitude, as hydrophobia, the dance of St. Vitus, or any other accidental complaint!

The foregoing strictures are made with regret; but as we are determined that our practice and principles at the South shall not be misrepresented, we feel called upon, in justice to our *confreres*, to denounce, in unqualified but respectful terms, this feeble attempt to shed light upon a subject of which the author seems to know really but little.

Passing over much that might be the subject of remark and criticism, we pause to examine some of our author's views on the nature and treatment of yellow fever. On the subject of treatment, Dr. McG. says, "opiates should be given at any stage of the disease, when irritability of the stomach, vomiting, or pain and distress of the patient demand their use." Does the intelligent and experienced reader require any other evidence, after the above announcement, to prove that our author is wholly ignorant of the nature and treatment of the disease? It is scarcely necessary to state that great irritability of stomach, sometimes attended with nausea and vomiting; hot and dry skin; intense pains in head, back and limbs, usually usher in, or at least, characterize the first stage of the disease; and yet, with all these contra-indications before him, he gravely tells us that opiates may be given at "any stage of the disease." Assuredly they may be administered at any period of the attack; but will the writer presume to assert that they will not aggravate all the symptoms—yea, the identical symptoms to relieve which he would cause them to be given? Such at least is the result of our experience, (over ten years,) in the treatment of yellow fever. Nor are we unmindful of the fact that some of our practitioners give, very early in the disease, large doses of opium, in particular forms of the fever, but *always* combined with twenty or forty grains of quinine; with a view to control vascular excitement, allay the nervous pains, and, above all, to promote diaphoresis—always a desideratum in the forming stage of the disease. But Dr. McGown advises *opiates* here, as in other cases, to allay the irritability and pain of the stomach—generally the effects of crudities in that organ, (especially in the commencement of the attack,) and more or less hyperæmia of the mucous coat of the stomach.

He treats *black vomit* with "free" (full) doses, he means of laudanum and quinine,—very good practice, say we, as it would but tend to hasten the patient to that "hourne" from which no science or skill, but nature alone, can rescue him, and thus put a period, at once, to his sufferings and the doctor's visits.

Shall we say more, or shall we consign this "Treatise on the Diseases of the South," to the tender mercies of the discriminating public, for whose benefit it was doubtless written, at the instigation of the author's friends? Without aspiring to be hypercritical, we have spoken rather disparagingly of the book as a whole; yet we must compliment the author, as it is his first effort, for his moral courage and the confidence he has in his own intellectual powers. The book may be regarded as creditable to this *new* country, for we have no doubt the Mississippi was, upon a time, a babbling brook, whose onward course might have been dammed up by a handful of bull-rushes; but in the course of time, his strength has become so great that all the authorities of this great city, headed by his honor the Mayor, could scarcely stay his swelling floods within his original bed!

Candidly, the efforts put forth by the author, in the preparation of this work, will enlarge his views, we would fain believe, of the principles of *Southern Medicine*, and teach him the necessity of adhering to his text, in his future labors with his pen.

Dr. McGown advocates the free use of the sulphate of quinine, in all our autumnal intermittent and remittent diseases; also, in acute rheumatism, as the most certain, speedy, and effectual remedy we possess. He is quite sound on the subject of quinine, in the treatment of our diseases, and his views on the use and action of this invaluable medicine meet, in the main, with our unqualified approbation.

Let not the reader infer, from the tenor of our remarks, that we think Dr. McGown a bad writer, or an incompetent practitioner; on the contrary, we have abundant proofs of his sagacity, his learning, and his industry; we only contend that he was utterly unfit for the herculean labor which he rashly took upon himself to perform: it may not inaptly be compared to running an excellent quarter horse (to use a turf phrase) over a four or six mile track, he must needs fail,—not for speed, but for “bottom.”

We have already occupied too much time with the “Treatise on Southern Diseases;” and, in conclusion, we would respectfully remind the author, that he who dabbles in ink must needs soil his fingers. He will please accept our thanks for a copy of the work, the mechanical execution of which is creditable to the publisher.

IV.—INTRODUCTORIES—1st. *Before the College of Physicians and Surgeons of the Upper Mississippi.* Session 1849--50. By J. T. SANFORD, M. D., Professor of Surgery. 2d. *Before the Philadelphia College of Medicine, on the “Study of Medicine.”* By THOMAS D. MITCHELL, M. D., Professor, &c., Oct., 1849.

The Lecture by Professor Sanford was delivered before the second class of students in the hall of the College of Physicians and Surgeons of the Upper Mississippi, and we are assured by the Professor that the second class was larger than in any other institution ever established in the West. The chief object of this lecture seems to drive at one point: to advocate the multiplication of medical schools, as the best means of extending instruction, and opposing the strides of quackery. We might establish a medical school in every county or shire in every State in the republic, yet charlatany would laugh and grow fat, in despite of the learning of professors and the “gradus doctissimus” conferred upon the ambitious student. The public must and will have physic; and all the teaching that ever emanated from the halls of science have, thus far, failed to impress upon the people the folly of buying and swallowing quack medicines. The error is incorporated in our mental constitutions, and to prove this, we have only to refer to the history of the past. Professor Sanford sustains his position by reference to the early period of medicine, when schools for teaching the healing art did not exist, and when this science was made up of the doubtful experience of a few individuals.

This argument, drawn from the early periods of our science, is inapplicable to the present day; and we are surprised that a learned teacher should attempt to enforce a point based upon such incorrect data.

Without seeking to apologise for the organization of new schools, our medical faculties must recollect that this is a free, a *democratic* country, in which every man is privileged to engage in teaching any science or art of which he may be entirely ignorant.

Professor Sanford's lecture is well written, and embodies much good sense. He has our acknowledgment for a copy.

Professor Mitchell's introductory is an interesting discourse, and fully equals any of his former able efforts. He is a man of close observation and much industry. Such are always safe teachers and sound practitioners. We have so often had occasion to notice the literary labors of Professor M., that we deem it superfluous to devote much space to an analysis of this very pleasing introductory. We are under obligations to the author for a copy of his address.

V.—*Principles of Human Physiology, with their chief applications to Pathology, Hygiene and Forensic Medicine.* By WILLIAM B. CARPENTER, M. D., F. R. S., F. G. S., etc., etc., etc., Lecturer and Examiner, London University. Fourth American Edition, with extensive additions and improvements by the author, with two plates and three hundred and four wood cuts. Philadelphia, Lea & Blanchard, 1850.

The great popularity and the consequent rapid sale of Carpenter's "*Principles of Human Physiology*," in the United States, have induced the author to revise this his last edition, expressly for his American publishers. In doing this, he has given us his latest views, together with the results of the recent labors of other physiologists on numerous points of practical interest. The progress of physiological science, through the aid of the microscope and chemical investigations, has been so rapid of late years, that all works claiming to give an accurate exposition of its principles and bearings upon the science of medicine, must be annually, nay, semi-annually revised and amended. Dr. Carpenter's work is literally up to the times, and is, therefore, one of the best books in the English language on human physiology.

The additions made to the present edition will be found in the department of the book which treats of the nervous system, and generation. A revision of the chapter on the nervous system has been rendered necessary, by the author's own investigations, on the subject; these inquiries have induced him to abandon certain doctrines put forth by Marshall Hall, and long adhered to by himself, in relation to the cerebro-spinal

centres. The views of Messrs. Todd & Bowman, on this branch of physiology, are, in the estimation of Dr. C., more in accordance with facts than those advocated by the first mentioned author. With the two latter physiologists, our author agrees in several particulars; but he has rejected some of the doctrines of M. Hall, and he was led to differ from that gentleman from the results of certain experiments on this branch of physiological science, made and recorded by himself.

His chapter on generation has been modified and made to harmonize with the views enunciated by Bischoff, rather than those maintained by Barry. In regard to the development of the ovum, he has adopted Bischoff's speculations as more tenable and rational than those of any preceding writer on the same subject.

Besides many important additions scattered through the work, there will be found some valuable amendments in the chapter on the primary tissues and on nutrition. As the work of Dr. Carpenter is already fully appreciated on this side of the Atlantic, we simply intended to direct the attention of the American student to those parts of the book which have received the particular care and supervision of the author, and which the progress of the science demanded in a work purporting to keep pace with the science of physiology. As the work now appears, it is immeasurably in advance of any thing written on the same subject, and embraces a mass of information and a multitude of facts, not to be found in any one treatise extant on the same subject. We, therefore, advise every physician who wishes to become acquainted with the progress of physiological medicine to supply himself with a copy of the work. It is handsomely printed, and the cuts are excellent, aiding us essentially in understanding the text. Mr. Thos. L. White, 53 Canal Street, has several copies for sale.

VI.—PROFESSOR JOHN K. MITCHELL'S *Introductory Lecture*. *Jefferson Medical College, Philadelphia, October, 1849.*

Professor Mitchell, always original, if not correct, in his views of medical science, has fully sustained his high and enviable reputation in this Lecture, delivered before the class of the Jefferson Medical College in October last. We shall not soon forget the interesting and instructive lectures which we heard him deliver, when a student in Philadelphia; and since that period; we have followed him in his researches, and read his writings with pleasure and profit. Impressed with a full sense of the high and responsible duties attached to a Teacher of Medicine, Prof. M. assumes a tone, and adopts a language, well calculated to arouse the young student and point out to him the true path to glory and distinction. May they follow his advice, and emulate his devotion to science. In this address, the Professor directs the shafts of ridicule

against indolence and that species of spurious dignity which proves a stumbling block to some minds, small ones of course, in the pursuit of scientific knowledge. He illustrates his views by reference to the illustrious *Jenner*, who, acting upon the suggestion of a silly dairy-maid, finally elaborated—yes, that's the word, one of the most valuable discoveries with which mankind has ever been blessed.

Throughout, the lecture is elevated in sentiment, pure in morals, and may we add, without offence, sublime in thought. We thank the author for a copy.

VII.—*Statistics of Cholera; with the Sanitary Measures adopted by the Board of Health, prior to, and during, the prevalence of the Epidemic in Philadelphia, in the summer of 1849. Philadelphia, 1849.*

The Board of Health of Philadelphia, as early as November, 1848, began to inquire into the hygienic condition of that city, and to adopt a system of sanitary police, well calculated to avert the dire calamities of epidemic cholera. With creditable foresight and becoming wisdom, the Board saw, in advance, that cholera was hastening to our shores, and true to the interests of the public health, that body immediately began to look around them, and to cause the removal, when practicable, of every thing known to invite or to extend the disease. The effects of this early action was productive, we are induced to believe, of much good, as the mortality from cholera, in the city of Philadelphia, was, in proportion to the population, less perhaps, than in any city in the Union. In a word, every thing was put in order; lots, houses, etc., were examined, and, if necessary, cleansed; nothing was omitted, calculated to avert or to limit the ravages of the fell disease. The right spirit animated the sanitary committee, and they labored with a good will, and obtained the hearty co-operation of the city councils and municipal corporations, in the execution of the sanitary reforms which they suggested.

The Committee of the Board report the number and the nature of the "local nuisances" which were either abated or removed, prior to, or during the prevalence of the epidemic; the result speaks well for the vigilance and industry of the committee. As soon as the cholera appeared in the city, physicians and druggists were appointed for the city and liberties; the former to attend and prescribe for the poor, and the latter to prepare and furnish the medicines on the order of the physician; thus, those who might be seized with cholera, and were unable to purchase help, were enabled to obtain advice and medicine, free of charge, at their homes; and the committee think this wise precaution proved of great advantage in ameliorating the condition of many who would otherwise have perished for the want of timely assistance.

The Sanitary Committee, in their report, passed the following high and just compliment upon the Medical Profession of Philadelphia for its conduct during the prevalence of cholera in that city; as ever, they must be content with the eloquence of praise. They say: "The Board would be neglecting an important part of their duty did they fail here in noticing the benevolent zeal and the meritorious conduct of the members of the Medical Profession during this trying period. With no expectation of pecuniary reward, they stood ready to lend their aid to the suffering poor. By night and by day they were found in the pent-up chambers of the sick and the afflicted, breathing a loathsome and pestiferous atmosphere, cheerfully and assiduously administering to their relief. Exposed to contagion, if any existed, and at the hazard of health and life, with no other reward than the pleasure of doing good to suffering humanity, in a God-like profession."

This last sentence is very flattering to the profession, but it is quite awkward, as it is incomplete. We would simply ask the Board, who were "*exposed*," etc.

But, all criticism aside, the Board has made quite an interesting report; and all the facts connected with the epidemic have been, seemingly, candidly examined, and carefully noted. To extend accommodations to those who, when sick with the disease, could not be attended to at home, several temporary cholera hospitals were established in the city and suburbs, to which one principal and one assistant physician, with a number of competent nurses, were assigned, to administer to the wants and sufferings of the inmates. All received respectable salaries for their services, and were appointed by, and held the office under, the Board. Among the first cases of cholera in the city of Philadelphia, were two persons on board of a canal boat, at Richmond, which had arrived the night before, viz.: the 30th of May, 1849, from Bridesburg. One of these, a man, had labored under diarrhœa for several days, and, on the 29th, was seized with cholera, and died about 12, M., on the 30th. The other, was attacked with cholera on the 30th, and died the same day. The third case occurred in Fourth Street, above Shippen Southwark, in the person of an Irish immigrant, recently arrived in the country, and just from New York. He died in ten hours from the seizure. On the 31st, another case occurred, in Barclay Street; and on the 2d of June, two others were attacked, near the Schuylkill. After this date, the report informs us, the disease gradually increased. The Board of Health published their official bulletins for about 81 days; but on the 18th of August, as the cholera no longer existed in an epidemic form, they discontinued these daily publications. During the prevalence of the disease as an epidemic, (81 days,) the number of cases returned to the Board numbered 2141, and 747 deaths; the greatest number attacked and dead during one day, were 84 cases of the former, and 37 of the latter. This was on the 14th of July. In 1832, the cholera prevailed, in an epidemic form, in Philadelphia, for 86 days, and in 1849, for 81 days.

In 1849, the cholera made its appearance in that city about the 30th of May; in 1832, on the 11th of July; in '49 it reached its acme in 38 days; in '32, in 27 days. The total of deaths and attacks for both

epidemics were very nearly the same ; but it is scarcely necessary to remind the reader that the population during the time of the epidemic of '32, was far less than that of '49. Hence, it may be inferred, that in proportion to the number attacked, and the deaths, the epidemic was much more malignant in the first instance than in the last. We have said enough, we hope, to give the reader some idea of the origin, duration, and ravages of the cholera in Philadelphia, during the summer of 1849. We cannot devote more space to a subject that has already occupied the attention of statisticians to but little purpose. We, therefore, refer the inquisitive reader to the body of the report for tabular statements, and other interesting items on the subject of cholera.

VIII.—*The Transactions of the American Medical Association, instituted 1847. Vol. II, Philad.pp. 956.*

The volume before us is the fruits of the deliberations of the *American Medical Association*, which met in the Hall of the Lowell Institute, at Boston, May the 1st, 1849 ; Dr. Stevens, of New York, presiding.

The committee charged with the nomination of the officers for the ensuing year reported : Dr. John C. Warren, of Massachusetts, as President ; Drs. John P. Harrison, of Ohio, Hugh H. Maguire, of Virginia, Austin Flint, of New York, and R. S. Stewart, of Maryland, as Vice Presidents. These nominations were unanimously confirmed by the Association. Of the delegates appointed by the different States to represent the profession in the Convention, about 475 answered to their names ; certainly a very large attendance, and highly gratifying to the pride of the profession, as indicative of the great and absorbing interest felt in the progress of medical science. Many important resolutions were presented and adopted by the Association ; and among this number we observe one earnestly advising physicians generally, throughout the Union, to require those wishing to become their pupils to furnish satisfactory evidence of a proper general education before admission into their offices.

This is an important step on the road to reform, and it is the only legitimate mode in which it can be brought about in a certain, satisfactory manner. But many of the profession, now in active practice, and scattered over this glorious Union, are themselves imperfectly educated, as has been said, and, therefore, not qualified to judge of the attainments requisite to commence the study of medicine. This may be true, to some extent, but we are persuaded, that the great body of the profession possess sufficient general knowledge of the arts and sciences to ascertain the preliminary education of our young men. Again, the Association urges upon the State Societies, after being fully organized, to

recognize as regular practitioners none who have not obtained a degree in medicine, or a license from some medical body, after a proper examination. Dr. Evans offered a resolution, which was *adopted*, requesting trustees and others exercising the office of appointing professors in medical schools, to adopt the system of *concours*, or public trials, as the surest means of obtaining the best talent in the profession to fill our professorships. This is an important move, and will create a new era in the history of medical teaching; and, if adopted, and carried into effect, will check the multiplication of medical schools, secure able professors, and elevate the medical profession in public estimation. From the January number, 1850, of the *North-Western Medical Journal*, we perceive that the *Rush Medical College* will be the first faculty in the United States to adopt the system of *concours*, as recommended by the last National Medical Convention. When our youthful institutions manifest a readiness to adopt an experiment so promising for the good of the profession, we can scarcely entertain a doubt that those older and more firmly established, will readily follow an example so creditable to the faculty of the Rush Medical College.

Under this mode of organizing a faculty, learning and superior attainments will be the best guaranty to promotion, and this, too, without patronage, or any extraneous influence to operate for or against the candidate. A committee was appointed to inquire into the expediency of adopting the English language in writing our prescriptions. Said committee was instructed to report at the next annual Convention.

The French, with true national pride, invariably, we believe, write their recipes in their vernacular language, well aware that this step will diffuse abroad their dialect, and be gradually adopted, or, at least, better understood. Hence, for a medical man to be ignorant of the French language argues, with many, incompetency to practise medicine. We can see no valid objection to the adoption of plain English in making out our prescriptions; this is an age of progress, and it will not do for us to tarry by the way when the great mass of mankind are in a state of motion, of "transition," and when the public mind is sufficiently informed to be inducted a little more into the mysteries and art of prescribing. Those who object to this proposition on the ground that the people would take the profession out of our own hands, and treat themselves, and thus stand on equal footing with doctors, are either ignorant of the true principles of our science, or unnecessarily alarmed. We say, give more light to the people on the subject of health and disease, on physiology and therapeutics; and the truly learned physician will have nothing to fear, but much to aid him in his practice; while such as are destitute of skill, and are incompetent, will, through apprehension of exposure, be driven to exert their powers and apply themselves diligently to the study of medicine. Mutual advantage, to the profession and the people, will flow from this measure, if the committee of the National Convention should, at its next sitting, recommend its adoption; and we feel called upon, in view of that Convention, to raise our voice in its favor, and ask the vote of the profession on the subject.

Had we time and space, we should be pleased to follow up this ques-

tion, and endeavor to point out some of the advantages that might redound to the profession by the adoption of the English language in framing our prescriptions.

We ask the attention of our readers to a resolution, *adopted* by the Convention, instructing the Committee on Education to inquire into the expediency of establishing a school of pharmacy in each of the States, for the special purpose of preparing persons for the business of apothecaries; and, also, the expediency of adopting a rule that no physician ought to patronize a druggist or apothecary who deals in patent or secret medicines. If the latter part of the above resolution is recommended by the next Convention, and enforced by the profession, our practitioners will be reduced to the necessity of compounding and preparing their own medicines, since all the druggists (at least in New Orleans, with the exception of a new house soon to open) deal largely, yea, extensively, in patent medicines. We, moreover, believe, that threatening to withhold our prescriptions from such as deal in secret medicines will not induce many to abandon this extensive branch of their trade, as the pecuniary profits arising from the sale of this description of drugs, will amply compensate them for any loss they may sustain at our hands; hence, we fear, the evil cannot be reached by a course so direct. The blow aimed at others, will but fall upon ourselves. We alone shall suffer, and yet fail of our object. We think the case irremediable; at least, at present, and the future must develop the wisdom which dictated the foregoing resolution.

A resolution was *adopted*, instructing the Committee on Medical Science, for 1849, to inquire into the expediency of establishing a Board to analyze the quack remedies and nostrums now palmed upon the public, and to publish the results of their examinations in a newspaper, to be established for the purpose; also, to append to these analyses such plain views and explanations as will enlighten the public on the dangerous tendencies of such remedies.

The above resolutions, if fully and faithfully executed, might banish a few nostrums and quack medicines from our drug stores and apothecary shops, but others would be crowded in, backed by the *bona fide* certificates of all the *clergy* in christendom, and thus we should have the same evil, but in another form. We think the suggestion, however, a good one; and hope to see it tested. With the foregoing comments, we close our notice of the minutes, etc., of the last National Medical Convention; and now we shall glance at the "*Reports of Standing and Special Committees.*"

The *Committee on Medical Sciences* was directed to prepare a "report on the progress of the medical science in America," and also to enumerate the most important discoveries made in anatomy, physiology, pathology, etc., etc., and, indeed, all the departments of science which might aid in advancing the progress of medicine in America.

Although the committee was instructed to report on the advancement of *American* medical science, for the year 1849, yet it was deemed best, at the outset, not to confine their comments alone to home medicine. They therefore, from time to time, and as the case required, glanced at

the progress of medicine abroad; believing that by such a course, their report would be more complete and satisfactory to the American medical profession.

The committee then proceed to notice in detail all the improvements, recorded in books or the Medical Journals of the country. In summing up, they have, seemingly, done ample justice to all parties, and although much has been omitted that belonged properly to retrospective medicine, yet it was not to be expected that the committee would embrace, in their report, all the valuable improvements and useful observations published during the year 1849. Had they attempted such a labor, the volume of transactions would have been swelled to an unreasonable extent.

On the whole, the *Resume* of the various committees made under unfavorable circumstances, will, we hope, prove satisfactory to the profession; we, however, must refer to a slight error, at page 392, where some remarks made by us, on the "health of this city," are credited to one of our former colleagues, who at that time had no connection whatever with the editorial department of the Journal. This error is unimportant to us; but as an act of justice to our confrere, we felt it our duty to allude to the mistake.

The volume embraces a number of valuable reports on public hygiene, the sanitary condition of many of our largest American cities, and a large amount of useful and instructive knowledge. We cannot go into details on all these reports; we commend, however, to the special notice of the reader, the paper by Dr. Isaac Parrish, on the "public hygiene of Philadelphia;" it is carefully prepared and highly instructive. From this report, we learn that the average mortality of the *white* inhabitants of Philadelphia, from 1830 to 1840, a period of 10 years, has been 1 in 43; whereas, the average of deaths, among the *colored* population for the same period, was 1 in 31. In the absence of any positive data on this subject, we may state, that the mortality among the colored population of this city, is much lower than among the whites; but if we restrict our calculation to the black or purely *negro* population, or those without any admixture, we feel confident the mortality might be rated still lower.

The death of a *black*, from yellow fever, is rarely witnessed in this city; and we have yet to see the first one fall a victim to that disease, although they may occasionally perish of some secondary affection, complicating the latter stages of the disease. This rather singular fact, affords another argument in favor of slave labor in the South, and teaches us that nature has, by some peculiar modification of the organization of the black, fitted him to dwell in this latitude. We may revert to this question, at another time, when we shall endeavor to point out some of the peculiarities of the diseases among our slave population. Again, as confirmatory of the foregoing views, it may be here stated, that the yellow fever is more intense, and consequently more fatal, among our colored population, in proportion to the predominance of the blood of the whites in their systems; in other words, mulattoes suffer more than the blacks, and the quadroons more than the mulatto, and so on.

The report by Dr. J. Curtis on the *public hygiene of Boston*, embraces much useful information; and from it we learn that consumption, typhus and dysentery, cause more deaths than all other diseases combined.

The most fruitful source of death is consumption, which is influenced by age, but not by season; whilst typhus and dysentery are affected both by age and season, both being more fatal about the latter part of summer and beginning of autumn.

We regret we can not follow up this very able and elaborate report by Dr. Curtis on the sanitary state of Massachusetts; it is clear, accurate, and abounds in a great variety of valuable statistical information, and is by far the most satisfactory paper contained in the "Transactions."

It will excite much interest throughout the country, and may be taken as a model for such reports. The labour in preparing it must have been immense, and we shall refer to it hereafter for information.

This volume contains several other interesting reports, besides those already mentioned; we may mention one on the *sanitary condition* of Baltimore, by Dr. J. Wynne; of New York, by Dr. J. H. Griseom; of Charleston, by Dr. P. C. Gaillard; of New Orleans, by Dr. E. H. Barton, and observations on the yellow fever quarantine at New Orleans, by Dr. E. D. Fenner.

Also, letters on the *sanitary condition and hygiene* of Louisville, by Dr. L. P. Yandell; and of Cincinnati, by the late Dr. J. P. Harrison. Besides the papers already mentioned, many other reports, communications, documents, etc., etc., ably drawn up by standing committees and distinguished individuals, are contained in the "Transactions of the Association. In concluding this brief and imperfect "notice," we shall copy the following summary from the report of Dr. Gaillard, on the sanitary condition of Charleston, and then advert *breviter* to the papers written by our fellow-citizens, Drs. Barton and Fenner. Dr. Gaillard, speaking of the improved sanitary condition of Charleston, says:

"From its almost insulated position, Charleston is little liable to malarious diseases, although they abound in the neighborhood." He then states that the general health of the town has been improved much of late years, by paving the streets, filling up vacant lots, draining, and the like. The most filthy and crowded parts of the city are the most sickly, and here, says he, the yellow fever first occurs and prevails to the greatest extent, and proves most fatal. The latter disease has not prevailed as an epidemic in that city for eight years; the cause of yellow fever he regards as uncertain; some think it of endemic origin, others imported.

The paper by Dr. Barton, giving the *topography*, and an account of the *sanitary condition* of New Orleans, will be read with interest by the distant reader. After pointing out the locale of the city and defining its boundaries, touching upon its meteorology; the course of the prevailing winds; ventilation; the character of the laboring class; their social condition; their comforts, etc., etc.; he proceeds to speak of the quantity of rain that falls annually, putting it down to 52 inches, although the report declares we have no *rainy season*; we think, our citizens will agree with us, when we assert that we have rarely a *dry*

season, at least, for any length of time. Dr. B. states that more rain falls during the winter, than the summer, and the fall being our driest season. He places the average temperature of our *winter* months at 53.77° ; of the *spring*, at 67.76° ; of *summer*, at 79.27° ; and of *autumn*, at 67.51° ; thus averaging throughout the entire year a temperature of 67.07° .

The extremes of our climate range from 30 to 90 degrees Fahrenheit; the *daily* average range throughout the year, the author places at about 10° .

Dr. B. advocates the planting of trees along our streets and about our vacant squares as means of purging the atmosphere of impurities, and alludes to the old story, or rather superstition, which relates that for the last 25 years, a death has rarely occurred in the "Place d'Armes," a square in the lower part of the city and containing a few sycamore trees. This story may be explained by recollecting that the houses surrounding the square are occupied by *Creoles* of Spanish and French parentage, born on the spot, and therefore fully acclimated; and whom nothing short of a "tactus de cœlo," could destroy in any part of our city. Besides, it is rather a place of business, than the abode of families.

The author says that his meteorological observations, for many years back, show that on the average, more than 240, out of the 365 days, are marked as clear; 70 cloudy and about 30 rainy! Again, it appears from the same source, that the *clear* days have greatly increased over the number for former years; that there is much less moisture in the atmosphere; less rain and fewer storms, than in times past. After telling us that the average quantity of water, that falls annually, is as high as 52 inches, and that we have, throughout the same period, only thirty rainy days, looks rather curious and, to our thinking, difficult to reconcile. We are quite confident that, for the last ten years, the average number of rainy days, for each year, would not fall far short of 50 or 75 days, on which more or less rain falls. Again and again, have we had more or less rain daily for two or three weeks together; nor is it confined to any particular season; more common during the winter months, but still it happens sometimes in the midst of summer. The bad state of our streets affords abundant proof of the frequent heavy rains with which we are visited, at almost every season of the year. It may be that we do not fully understand the author; perhaps his *clear* days are made up of fractions added together, and if so the ease is materially altered, but such a method of calculating will make erroneous impressions.

Dr. B. ascribes these meteorological changes—this diminution of rain and moisture, in our climate, to the system of drainage now adopted; to clearing up and subduing the forest and cultivating the swamp lands, when reclaimed. In this he is doubtless correct, for it is a well ascertained fact, that cultivation, and the improvements resulting therefrom, greatly modify the "*status*" of climate.

Our author does not believe that our mortality arises from any noxious principles in the atmosphere of the city; as ventilation is perfect,

and "*nothing*, neither the elements nor man, are stagnant." Dr. Barton is opposed to the present mode of draining the city—from its surface, and thinks when a different and more effectual plan is adopted, the sanitary condition of the city will be greatly ameliorated, perhaps the mortality reduced one third. In this statement we fully agree with him, and trust the day is not distant, when a more liberal and enlightened policy will lead our authorities to direct their attention to this important subject.

Dr. Barton thinks the "floating population" of this city, adds about one-fifth to our mortality; and this fact he adduces from the returns of the Charity Hospital; but this is a fallacious criterion by which to determine the ratio of deaths among the resident and floating population. Had he restricted his calculations to the mortality in the Hospital *alone*, he had been much nearer the truth; perhaps fallen behind it, as we think in this Institution, it might be put down at one-third of the entire deaths.

Dr. B. states that our average mortality, for the last eight years, is one in 19.42, embracing our epidemics of *yellow fever*, etc.; but in 1845, a healthy season, compared to some included in the above eight years, the deaths were one in 33.07. This is a fearful mortality certainly; and now let us look to some other countries, and compare. In Norway, the deaths are one to 50.8; in England, (country,) 45.6, cities 39; in France, one in 40; in Holland, one in 40; in upper and lower Austria, one in 53; in the Roman States, one in 28; in Russia, bordering the Dnieper, Don and Wolga, one in 23 to 18, etc., etc.

In the great capitals and crowded cities of the above-mentioned countries, the ratio of mortality is from ten to fifteen per cent. greater; and Vellerme declares, that the deaths, in some parts of France, among the indigent poor, is double that of the wealthy; and he asserts that if we take the whole population of France, we shall find that life is protracted about twelve years longer among the rich than the poor! Another proof, (if that were wanting,) of the curse of poverty. The Secretary of the Poor Law Commissioners, made an estimate of the individuals who died in towns and in different places, according to their occupation and condition in life; and the result was, that of those who were

Prosperous,	1088	died at an average of	42.6	years.
Middling Class,	4,791	- - -	29	"
Poor	" 19,849	- - -	20.4	"

We feel confident that the rate of mortality, in this city, between the wealthy and independent citizen, (few being truly rich,) and the *really* poor, is more than double among the latter class; this fact is made strikingly apparent, during one of our epidemics.

Dr. Barton demands, "If the climate of this city is "*lethale per se*," does it belong to its position? and is it irremediable? or does it spring, in any measure, from habits and customs that are incompatible with the climate?" Dr. B. admits that he has not sufficient data, upon which to proceed to demonstrate, we presume, the *negative* of the above questions, although the facts and observations which he possesses and has made, are perfectly satisfactory to his own mind on this subject.

To answer the preceding interrogatories, Dr. Barton tells us that

among 2127 members of the Sons of Temperance, only 29 died, during the two years ending last April, being a mortality of 1 in 83.41; of this number 8 died of yellow fever, and 2 of cholera. The foregoing statistics, as far as they go, are very encouraging, but we are not *quite* certain that they can be implicitly relied on, as it would be necessary to know how many members of that useful society remained in the city during our epidemic season. Again, we can appeal to our own experience on this point, which authorizes us to state, that the yellow fever no more spares the *temperate* than the *intemperate*, and that the former fall victims to the disease, during an epidemic, as frequently as the latter; in stating this, we appeal to the experience of the candid and enlightened physicians who have passed the trying ordeal of our epidemic fevers, and feel assured they will bear us out in the declaration. It is a common remark that the most abstemious and temperate are the most liable to an attack of the fever, and we can only recall one individual who perished of the fever, from previous habits of dissipation. Without seeking to weaken the public faith in the cause of temperance, we nevertheless think it due, both to truth and science, to promulgate the above facts for the benefit of whom it may concern.

Another fact which goes to prove, in the opinion of Dr. Barton, that our climate is not in itself detrimental to health, is, that "but about *one-seventh* of those who have died of yellow fever, during the last eight years, were females."

This fact is based upon the assumption that *females* are more temperate than the *male* portion of our population. This, we believe, is true of all communities, and we take much pride in paying this feeble tribute to the virtues of our fair countrywomen. But is this the true cause of the low mortality among the female portion of our population? Did the doctor forget that hundreds of our females, who are not compelled to remain in the city on account of business, fly from the pestilence, on the first alarm, some to the lake shores, some to the neighboring country, others to the north, whilst their male friends are forced to dwell in our midst, grapple with the yellow fever, and perchance fall victims to the scourge? This argument, then, is, we regret to say, fallacious; even admitting its truth, the fact would militate against the position assumed by the author, since females are less exposed to the malign influences of our climate than the opposite sex, and hence the comparative exemption from disease which they enjoy. We repeat, it is less their proverbial temperance, than their habitual seclusion from insolation and the deleterious influences of our climate, which reduces the mortality among them to such a low per cent, as compared with the male sex. That the health of our city may be greatly improved by a proper system of sewerage and drainage, and a more strict attention to the *medical police*, we are free to admit, but to charge all the ills from which we suffer and by which we die, to our intemperate habits; to our immoral conduct, etc., is as far from the truth, in our humble opinion, as it is repugnant to our feelings and a strict sense of justice.

The author deduces another argument in favor of the salubrity of our climate, from the fact, that persons imprisoned in our calaboose and

jails, are protected from the yellow fever; not because they are excluded from the heat of the noon day sun and the dews of night, but (*mirabile dictu*,) because the "*habits of the individual* are restrained within those prudential limits prescribed by the rules of the prisons."

We reply to the above, by quoting some observations, applicable to the ease in point, made by the late lamented and talented Professor Harrison.

Speaking of those predisposed to contract the yellow fever, Dr. Harrison says: "Let us suppose a person who has been protected, in the best way possible, from those obvious causes of disease which may affect the health at any season. He is well lodged and clothed; he is *temperate* in his diet, and is careful *not* to expose himself to the sun, to wet weather, or the *night* air; he is abstemious in regard to *alcoholic* liquors. *These precautions, however, avail him little. In the midst of excellent health, he is stricken down.*"* The italics are ours; but will not every physician who has watched the progress of epidemic yellow fever in our city, subscribe to the truth of the statements in the preceding extracts? Both the temperate and the intemperate are alike liable to an attack of the disease; and among the latter, those only who commit great and habitual excesses, are prone to fall victims to the disease. These are, however, few in number, whatever may be said to the contrary.

The third position, then, advocated by Dr. B. is untenable, although we admit that those confined in our prisons do not, as a general rule, contract yellow fever.

We were induced to make the foregoing comments upon the paper written by our laborious and talented *confrere*, Dr. Barton, in order to vindicate the character of our people against the charge of intemperance, as alleged in his communication to the National Medical Association.

In our few passing strictures, we have looked rather to fundamental principles than to individual cases, and we now return our thanks to the author for the satisfaction we have enjoyed in reading his article. It is, however, to be regretted that the intrinsic value of the paper is materially damaged by the obscure style in which it is written, his sentences being frequently too long, and sometimes involved.

The same volume of the "Transactions" also contains an interesting paper on "Quarantine at New Orleans," by our friend and former colleague, Dr. Fenner. This we had intended to examine and to state our objections to some views contained therein; but we have already encroached too much upon our limits to say more. In conclusion, we must express our acknowledgments to the various committees of the Association for the kind and flattering manner in which they have, from time to time, been pleased to allude to the *New Orleans Med. & Surg. Journal*. In the name of, and on behalf of our contributors, to whom the honor belongs, we tender our unfeigned thanks for the complimentary terms in which the association speaks of many of the *original* articles contained in our humble sheets. For the future, we shall strive to obtain

* Vide New Orleans Medical and Surgical Journal, for September, 1846.

still higher favor in the good opinion of this learned and impartial association of medical gentlemen. We noticed a few misprints of some of the names of our correspondents. For example, W. P. Hart, for *Hort*; B. Sowler, for *B. Dowler*. These are unimportant errors, yet we felt it our duty to point them out.

Mr. White, 53 Canal street, will accept our thanks for a splendid copy of the Transactions.

VIII.—AN INTRODUCTORY DISCOURSE—*Delivered in the University of New York, session 1849–50.* By Professor V. MOTT.

AN INTRODUCTORY LECTURE—*Delivered at the Massachusetts Medical College, Session 1849–50.* By Professor H. J. BIGELOW, M. D., Professor of Surgery.

The discourse pronounced by Professor Mott before the Medical Class of the New York University, is superior in style and less egotistical in tone than some other productions we have read from the pen of this distinguished American surgeon. He sketches with much eloquence and truthfulness the present advanced state of the medical profession, and evinces a familiar acquaintance with modern medicine, and all the discoveries made during the last 25 years. He pays a high but deserved tribute to the anæsthetic virtues of chloroform, and endorses its efficacy and safety in surgical operations, in the most emphatic language. Altogether, it is a beautiful piece of composition, and the admirers of the author will hail this effort with unmingled satisfaction and pride.

The introductory of Professor Bigelow, of Harvard University, is mainly occupied with illustrations of the principles of surgery—of their true signification—of the manner in which they may or have been established. In his matter, and in the mode of demonstrating his views, Prof. B. is quite original, and, frequently, fresh and racy. His perceptions of the tendency of medicine, of the best method of studying its principles and advancing its interests, are at once clear and comprehensive, and, taken as a composition, the lecture is highly creditable to the scholastic taste of the author.

The able and interesting lecture of Professor Paul F. Eve, before the class of the Georgia Medical College, has been mislaid, and will not be recovered, in all probability, in time to be noticed in this number.

IX.—*A Conspectus of the Pharmacopæias of London, Edinburgh, and Dublin Colleges of Physicians, and of the United States Pharmacopæia.* By ANTHONY TODD THOMSON, M.D., F.R.S., etc., etc., London. Edited by CHARLES A. LEE, M.D., New York. Samuel S. and Wm. Wood, 1849.

The great practical value of Thomson's "Conspectus" is universally conceded by the profession, and we wish merely to inform the practitioner that this copy is from the thirteenth English edition, much improved and carefully arranged by the American Editor. It is a treasure of useful knowledge, without which no one should attempt to prosecute the practice of medicine. We commend it to the old as well as to the young physician, as it will furnish both the requisite information on every eventful and trying occasion.

Part Third.

EXCERPTA.

I.—*Medical History of two Epidemic Yellow Fevers. Translated from the French, with notes. By the Editor.*
Yellow Fever.

CHAPTER II.

[Continued from page 531, vol. vi., No. iv., January, 1850.]

Pathological Alterations.

THE anatomical lesions which autopsies reveal, in yellow fever, may be referred to two distinct groups: in the first, those classes are found which have been detected in all epidemics, and consequently admitted by all those writers who have traced its history: to the *second*, appertain lesions of a special character,—those which, being recognized and described by authors worthy of confidence, have escaped the attention of other observers, or have really been completely wanting. Let us examine them in succession.

Exterior habitude. Icterus of various shades, from a simple yellowish discoloration, up to the deepest *serain* hue, with a brown or violet tinge in particular places. It is very rare that the yellowness does not take place after death, when it does not take place during life; cadaveric ecchymoses are produced with much facility, according to the laws of gravity.

According to M. Chabert, who studied the yellow fever at Barcelona, and at Vera Cruz, the violet and even the black spots, which are but the exaggeration of the icterus, show themselves over all parts of the skin, especially on the superior extremities, on the neck, on the face, still more frequently on the lids, on the ears, about the lips; on the neck they form a light semicircle, simulating strangulation by a cord.

Besides these brown spots, MM. Balby, Francois, and Parisett speak of the persistence "*post mortem*" of the petechiæ, which remain of a roseate hue, approaching to brown; they were analogous to flea-bites.

Valentine, who wrote in 1805, says, (page 77,) that he had rarely ever seen parotitis, never anthrax, nor carbunculous tumors, nor buboes; rarely deposits, but sometimes gangrenous spots; we have seen *elsewhere*, says he, gangrene extend itself and assail the extremities.

This anatomical lesion has been pointed out by many physicians, by Deveze, among others, who appropriated to it the name of sphacelus.

M. Rouchoux, in his excellent work upon the yellow fever, (5 obsert., page 2,) has reported the following case:

"All the anterior part, external and a little posterior to the left thigh, from the top of the femur down to within a short distance of the rotula, under the aponeurotic *facia lata*, contained an enormous quantity of black blood, very fetid, diffused in the interstices of the muscular fibres, which it separated, and penetrated as deeply as if thoroughly macerated."

"They were readily torn and had the same color as that of blood." During the epidemic of Gibraltar in 1828, many similar facts were observed: the most remarkable was the bloody infiltration of one half of the diaphragm of the right side. M. Chervin has particularly noted similar appearances in America and in the Antilles: at Martinique, M. Luzeau has recorded the same observations.

According to MM. Deveze, Chabert, and Cheve, the *cadavera* disengage an infectious odor during their decomposition; they promptly putrify.

Encephalic and *rachidian cavities*, most frequently in their normal state; a few variable lesions, either in the nervous mass itself, or in its envelopes, where, during the disease, there has been delirium, coma, stupor, etc. Such is the summary of the cadaveric researches, generally speaking: some authors, in truth, have never pointed out any pathological alteration of the encephalon and its dependencies; others, on the contrary, have described the constant physical changes of these organs. A discrepancy so striking, when it is so easily verified, can neither proceed from the inaccuracy, nor unskilfulness of observers; it is, then, derived from the character of the disease, and it is a proof, that the yellow fever does not always appear under the same characteristics, and that it may vary according to locality, or even in the same place, owing to particular circumstances, and hence assume a different physiognomy, and borrow from this or that morbid symptom a complication of phenomena.

In the epidemic of Barcelona, MM. Pariset, Bally, and Francois have remarked, that the *dura-mater* is rarely altered; the superior longitudinal sinus is frequently filled with fluid blood; in spite of the delirium during the last days of the life of the patient, the arachnoid is almost always healthy; in two instances only, it was of a dull opaque white, and covered with an albuminous layer, possessing a gelatinous aspect; *pia-mater*, choroid flexus, rarely injected; pulp of the brain of a healthy appearance; all the ventricles having their usual quantity of serosity.

On raising the *calvarium* we find, in some subjects, several ounces of fluid blood effused between the cranium and the *dura-mater*, or between the two layers of the arachneid; nothing is found in the cervical region of the spine; sometimes towards the dorsal vertebra, a sanguineous effusion; the lumbar and sacral regions, the end of the rachidian medulla and the cauda equina are almost always found bathed in a copious accumulation of serous fluid.

Those membranes which envelop the spinal cord have never presented any thing peculiar.

MM. Audouard and Chabert agree with M. Pariset as to the constancy of *hydro-rachitis*; M. Chabert found, in all the individuals who exhibited cerebral symptoms, collections of serosity in the ventricles and at the base of the brain. He has remarked, moreover, that the blood escaping from the brain assumes, very frequently, in falling to the ground, the color of the matter which we ordinarily find in the stomach; this observation is analogous to the opinion of M. Pariset on the alterations of the blood, as we shall see when we come to study this fluid.

Doctor Thomas (p. 131) has observed in America, and M. Pariset in Spain, an effusion of black blood in the interior of the vertebral column and the surrounding muscles; the membrane of the *medulla vertebralis*, and the surface of the neurilema presented a rose color, which he regarded as an indication of an inflammation of these parts; but MM. Martin and Dupuy who assisted him in these autopsies, did not entertain the same opinion.

According to M. Rouchoux, when there has been cerebral symptoms during life, we find traces of meningitis, but which differ in nothing from those observed in Europe; as to the brain, it has not always been found to be sound, sometimes it permits only a few drops of blood to escape, in making an incision into its tissue. In the majority of the epidemics of Martinique and Guadeloupe, in that of Senegal in 1830, so admirably described by Dr. Cheve, the disorders of the intellect were justified by the lesions found after death, both in the membranes and in the parenchyma itself of the brain; in them were found, conformably to the opinion of M. Rouchoux, the usual traces of both meningitis and encephalitis. Dalmas has recorded similar facts.

Thoracic cavity. Although the disturbance of the respiration is frequently observed in the course of yellow fever, it is very rare that we can discover any cause for it, in the respiratory apparatus. Dalmas says, however, that he has seen ecchymoses of the pleura and of the mediastinum, the lungs livid, engorged, and very dense; the blood which they contained almost black and sanious.

He relates such a state of things observed in an officer of genius, a victim to the yellow fever, in whom they found lesions nowhere, except in the chest. (p. 159.)

M. Rouchoux has never met with inflammation of the pleura, he has observed some ecchymoses, and the lungs sometimes engorged; it is to this point that the details given by other authors are likewise limited.

As to the heart, it has rarely appeared diseased. M. Chabert pretends, however, that he has almost uniformly found it of a dark color, even livid; we find, sometimes, serosity in the pericardium; fibrinous clots in the cavity of the heart, mentioned by MM. Deveze, Chabert, and Pariset, have not been verified by MM. Chervin and Rochaux.

Abdominal Cavity. It is the principal seat of anatomical lesions. Let us study, by turns, each of the organs which it contains.

When we incise the walls of the abdomen, a fetid odor, quite peculiar in its character, which cannot be described or defined, is inhaled, according to Deveze, from the abdominal cavity. The peritoneum rarely presents any traces of inflammation; the mesenteric ganglions are most frequently in a normal state. The intestinal tube presents frequently, on the exterior, brown violet spots, which, at first sight, could not be well characterized; this coloration is due to the black matter which the intestine contains, and which is perceptible on the exterior, in consequence of the transparency of the walls of the digestive tube.

Pugnot has found the exterior of the stomach and the intestines as yellow as the skin.

The *stomach* is never entirely exempt from morbid alterations; it consists in a redness, an injection of a thousand different shades of the mucous membrane; the consistence, the thickness of this coat of the stomach, present also numerous varieties. M. Pariset has seen this redness of the mucous coat approach a violet hue, in specks, or larger spots; he has never met with gangrene of the stomach; but these brown spots, when scraped with the handle of the scalpel, were detached with the greatest facility, and this portion of the mucous membrane is thus reduced to a kind of boiled meat, which may be considered as a degeneracy approximating a gangrenous state.

M. Cheve has found the internal surface of the stomach covered with a thick gelatinous, tenacious,* and whitish layer, presenting almost the appearance of a thick layer of pus in some cases. The presence of this stratum or layer, and the *ramollissement* of the mucous membrane were, in the epidemic of Senegal, in 1830, constant phenomena.

The stomach contains matters similar to those ejected by vomitings. It is

*This fact I have frequently observed; and the mucous membrane beneath is usually less injected and paler there than under other conditions of the same organ.

worthy of remark, that we frequently find black vomit in the stomach, when no evidence of its existence there had been manifested during life. I do not design here to indicate the different appearances of this fluid. I will advert to this part of my subject by and by; for the present, I will not do more than allude to its presence.

The *intestines* most ordinarily participate with the stomach in its alterations. M. Pariset says, also, that it is from debauchery, and he explains by this the pains in the umbilical region, pains as common, says he, as those of the stomach.

M. Audouard, who made his observations at the same time and in the same city, attributes umbilical pains alone to the presence of the black matter derived from the stomach, for he did not find any phlogosis in the corresponding point of the digestive organs.* M. Cheve has seen only in a very small number of subjects the duodenum participate in pathological alterations of the stomach; the small and the large intestines have always been found in their normal condition; sometimes, they contained only the black matter which had escaped from the stomach.

These diversified results of cadaveric researches correspond with the difference of extension which the disease may assume. However, the generality of authors have admitted that the yellow fever may frequently leave traces in the small and sometimes even in the large intestine.

Biliary apparatus.—The liver, regarded by some, especially by Tomasini, as the centre of the inflammation which constitutes the yellow fever, presents most frequently lesions by no means sufficiently serious to serve as an explanation for many of the morbid phenomena. Thus Deveze says that that organ is most always in its natural state; presents occasionally, however, extensive engorgements throughout its entire substance, and *depots* in certain cases; the matter which forms there is sanguinolent. According to M. Pariset, the liver never exhibits any alteration of tissue; perhaps it is more voluminous than in a state of health. The most constant phenomenon is its change of color, which is always yellow, instead of preserving the red-brown of this organ in its normal state. This discoloration, designated by him as the *rhubarb-yellow*, has been compared, by M. Trousseau, to old boot leather. M. Rochaux has most frequently observed irregular yellowish spots, on the surface, and more rarely on the parenchyma itself of the liver; its vessels are often gorged with blood. At Senegal, in 1830, the liver was yellowish, in an engorged state, and was a little friable. MM. Dalmas, Amie, Chabert, Thomas, Valentine, and Audouard have generally recorded the same results.

According to the cadaveric researches of the majority of authors whom I have named, the biliary reservoir contains a variable quantity of bile variously colored, but generally thick, and rarely presents any evident traces of phlogosis.

M. Pariset has seen the gall-bladder of a deep greenish, of a blackish-brown, and of a very singular obscure red color: the bile participates in this discoloration, and perhaps produces it; it was frequently dotted with yellow granules, as if a mixture of gold-dust had been spread over the bottom of a green bottle. The mucous membrane of the *vesica hepatica* never appeared diseased, according to M. Cheve. According to M. Rochaux, (page 130 et *suivant*,) on the contrary, it is, perhaps, difficult to find the *vesica hepatica* sound. Exteriorly, it ap-

* The above statement does not correspond in its particulars with our own researches on this portion of the *prima via*. The intestines are, in the great majority of cases, quite free from any serious morbid alterations; even the duodenum, although directly connected with a highly inflamed stomach, a stomach phlogosed, and containing several ounces of black vomit, is frequently found of its usual normal appearance; occasionally, however, slightly discolored, but rarely seriously inflamed.—*Translator*.

pears of a deep greenish yellow, sometimes bluish, approaching to black, but when we examine it more closely, we perceive, under its external tunic, a greater or less number of small vessels of a brown red: the quantity of bile is usually moderate: of even a less deep color, greenish, bordering on the black; on one occasion, it was mixed with blood which had exuded from the internal membrane of the gall-bladder, highly colored, and very liquid.

When the gall-bladder is emptied and well washed, its mucous membrane is injected and reddish, from the greenish yellow tint which the bile has communicated to it; its rugæ are very distinct; it is thickened, especially towards the neck, and sometimes of a vivid red color at this point; and it was more than a line in thickness, presenting an infiltration of blood between it and the external tunic, which was itself at least a line and a half in thickness. Doubtless this state of inflammation was likewise propagated to the *biliary canals*. This result of pathological anatomy, says M. Rochaux, sheds considerable light upon the theory of icterus.

Spleen and Pancreas.—These two organs have never presented any lesions to observers worthy of note.

Urinary Apparatus.—We find here among authors the same discrepancy of opinion as was remarked in reference to the biliary organs. The members of the commission sent to Barcelona never detected any lesion, either of the kidneys, or their dependencies. As to the *visica urinaria*, it was at one time full, at another empty; now and then greatly developed, often contracted; nevertheless, its internal tunic has been seen phlogosed in some points, and ecchymosed in others. On two occasions, this membrane was covered with a black matter, which completely lined it. It would appear that this coat should be attributed to a slight sanguineous exudation.

M. Deveze has rarely observed the kidneys in an abnormal state; when all the viscera of the abdomen were altered, they then presented some gangrenous spots. The bladder sometimes contained colored, bloody, and fetid urine. M. Calve says, that at Saint Louis, Senegal, the kidneys never presented anything remarkable; whilst at Goree, we often meet with some trace of redness in the pelvis, especially when there has been suppression of urine; but Doctor Cleve, the historian of the epidemic of Goree, which M. Calve did not witness, says, positively, in his thesis, (page 26,) that the kidneys, in cases even of complete suppression of urine, presented no trace of disease.

Yet M. Rochaux, whose testimony we cannot call in question, says, that inflammation of the kidneys existed in one third, or, at least, in one fourth of the subjects that died of yellow fever, and that it is constant when there is suppression of urine. Then we find it of a deep red color, diffused in spots, or uniformly diffused over its parenchyma; which, by a simple section, presents blood more or less abundantly.

M. O. Holloran has confirmed these results obtained by M. Rochaux, in a small number of cases, where he had sedulously examined the kidneys; he there detected lesions of an inflammatory character where there had been suppression of urine. On the body of a female he had seen abscesses in the *cones* of the kidneys, and some pus in the ureters; he recommends an attentive examination of the organs, because the purulent points which he found in these organs are extremely small. (*Dict. de Med.*, Tom., xvii. page 289.)

In studying the pathological anatomy of yellow fever, we must necessarily comprehend the matter of black vomit, and the alteration of the sanguineous fluid: let us review, on this point the main facts collected to the present day.

Lesions of the Blood.—They have been suspected, from the earliest account, in yellow fever: at the commencement of the present century, writers acknowledge lesions of the blood, and, since that period, the great majority of physicians, who have observed yellow fever, have admitted an alteration in the circulating fluid. *Valentine*, who wrote in 1803, says, page 130: "This black matter, which the sick discharged by vomitings, or by adverse de-

jections, seem to be the product of the blood from the gastro-epiploic, gastro-hepatic, the short meseraic vessels, which are distributed to and anastomose with each other in the tunics of the stomach and intestines, through which it transudes, opens a passage and is effused into the cavity of the stomach and bowels, where it soon undergoes a change, and becomes carbonized, during the short term of its sojourn in these passages. It is this matter which, being mixed with the gastric and intestinal juices, the bile, the pancreatic and the bilioso-mucous humors, acquire likewise that kind of tenacity which we find in the cadaver."

In yellow fever, he adds, (p. 175:) "the urine is not always bilious, although the skin may be yellow, as happens in ordinary icterus; a fact which authorises us to suppose that this yellow tinge is not due to the re-absorption of the bile, as in jaundice, but to a *septic acid* and to the *gaseous oxide of septon* which possesses the property of imparting to the blood a black thick color, often appearing in a state of dissolution, and subject, very frequently, to decomposition."

Joseph Frank likewise believes that the yellow tinge, in this disease, is not the consequence of effusion of bile into the vessels and upon the skin, but that it depends upon the globules of the blood, as in the latter stages of ecchymosis.

Lastly, (Valentine, page 177.) "This appearance of the skin, sometimes yellow or yellowish, again livid, covered with spots and with ecchymoses, indicated a morbid state, or an extraordinary relaxation of the solids; a great alteration in the composition of the fluids, whence necessarily ensues scorbutic phenomena.

M. Audouard is inclined to embrace the preceding opinions; according to him the icterus is derived from the serosity of the black vomit, reabsorbed by the *gastro-enteric* surface, and which, rendering the blood more fluid, permits it thus readily to escape from the tissues that hold it in a state of health.

This is not the only time that we shall find indicated in authors, an analogy between yellow fever and the scurvy; and this resemblance serves to prove, moreover, that the idea of the alteration of the blood has predominated, even without their knowledge, over the minds of authors, who have not expressed themselves on this point, in a positive manner. M. Pariset has found in the stomach; 1st. blood free from all admixture; it was in a fluid state, and sometimes filled its entire cavity. Nothing similar existed in the intestines. The fluid thus effused exhaled only a dull and nauseating odor; placed upon the tongue, it produced no other impression than that of ordinary blood. We may estimate at one eighth, the number of subjects in whom the stomach contains pure blood. 2d. A matter of a peculiar character; this was a kind of greyish pus, of feeble consistence, which resembled the *farina* of diluted flaxseed, and under these circumstances, the inflammation of the mucous membrane was more vivid and more extensive. 3d. In seventeen *necroscopies* a brownish liquid, in which was suspended floculi more or less abundant, that resembled the dregs of coffee or soot, diluted with water. These floculi being heavier than the liquid in which they are contained, are ordinarily precipitated. The effused liquid was sometimes of a deep, dark color, as black as ink. The brownish matter usually extended even into the rectum; the further it was from the stomach, the more consistency it acquired, and the darker it appeared.

The phenomena with which we have been most forcibly struck, (says M. Pariset, p. 360,) is that state of the blood which seems to be deprived of fibrine, which is no longer red, which does not coagulate, and the separation of which into a solid clot and into a yellowish serosity is no longer effected. This blood always remains black, carbonized and fluid; one would believe that its molecules had no affinity for each other; they are, without doubt, more divided or dissolved; and thus acquire the fatal property of transuding through the capillary extremities of the vessels, and of being effused. It is to this state of dissolution that M. Pariset attributes the sanguine effusion which he states to have sound, upon five-sixths of the cadavera at the inferior part of the dorsal region

and at the superior part of the lumbar region, between the bodies of the vertebra and the dura mater. M. Rochoux, (page 157,) says: During the first forty-eight hours, the blood drawn by venesection is, in almost all cases, the same as in a healthy man; yet it sometimes happens that in escaping from the vein it is of a light red. "When the bleedings have been practiced after the first forty-eight hours of the disease, the blood is found to be "couenneux," in perhaps half of the cases. Mr. Gillkrest declares that he has never seen the "couenneux," never the blood red. But let us return to the black vomit. It generally presents, according to M. Rochoux, two very distinct varieties: in the first, the matter which constitutes it is blackish brown, very fluent, mingled with black floculi; or it more nearly resembles soot diluted with water, or coffee grounds.

In the other variety, it is more consistent, black and tenacious, as it were less abundant, and seems to be formed almost of pure blood. M. Doctor Belot, of Havana, describes two kinds of vomit, the black vomit properly called, and the chocolate colored vomit; it is not the color alone which constitutes this difference between them; the first is, in his estimation, formed from an exhalation of blood mingled with some of the debris of the gastric mucous membrane; the second is as yet simply the product of a morbid secretion: this difference in their mode of origin likewise leads to a different prognosis; the one indulges us with the hope of effecting a cure, the other is an almost certain indication of approaching death.

Authors have moreover established an infinity of different shades, which it is very difficult to seize, but whose final limits always represent the same points of comparison, viz: soot and coffee grounds. It was thus, that at Gibraltar, in 1828, M. Gillkrest regarded black vomit under the following forms; 1st. Thin floculi, of a blackish color, floating like the crushed wings of a butterfly in a glairy fluid, or resembling an infusion of black tea. 2d. A perfect resemblance to a mixture of soot and water, or to the contents of a coffee pot, when the clear supernatant part has been removed. 3d. A homogeneous substance of a deep black having the consistency of jelly, and sometimes adherent, in part, to the mucous membrane. This substance is now rejected by vomiting, and cannot therefore be well studied until after death. We rarely find it in the stomach; the intestines usually contain a large quantity of this matter. Some have suggested a simple proof, by which to recognize true black vomit; it is to plunge into it a piece of white paper, which will not be colored by the black vomit.

Dr. Cathral of Philadelphia has analysed the matters rejected from the stomach in black vomit. He found an acid predominant, which was neither the carbonic, nor the phosphoric, nor yet the sulphuric, but what he *presumes* to be, without venturing to assert it, *chlorohydric acid*. It results from an analysis made by M. Audouard, that the black matter which we find in the stomach is composed of two very distinct parts; the one serous, and the other glutinous or mucous. That which we find in the intestines is of the same matter, with this difference, that it has no serosity; this matter, then, seems to have been elaborated, and rendered homogeneous by the process of digestion. In both products, there exists an acid principle and much gelatine, (page 165.)

Samuel Jackson relates, (page 81,) that Dr. Rhee made at Philadelphia, in 1820, a series of observations upon the black vomit with a solar microscope; he detected an innumerable multitude of *living animalcule* and in continued motion if the matter had been recently rejected from the stomach; dead and immovable if it had been vomited for any great length of time.

Comparative researches were made upon the vomit rejected by patients laboring under remittent fever, and the bilious fevers of autumn; but nothing similar was discovered. Doctor Bancroft says, he has found a considerable quantity of black matter in the gall bladder, and in the *ductus choledocus*. This fact is by no means strange, if it is true, since it is the common opinion, that the black matter may proceed from an alteration of the blood effused into a cavity; the

mucous membrane of the gall-bladder may exhale it, like that of the digestive tube. The matter of black vomit has been found exclusively in the stomach, or in the small intestines, or in both, and sometimes throughout the entire extent of the digestive tube.

This black matter generally possesses but little or no odor at all; sometimes it is intolerably fœtid. The part which the blood plays in yellow fever is so striking, that M. Foureau de Beauregard considers this disease as one essentially hemorrhagic, a kind of acute scurvy, which is connected with a predisposing cause peculiar to hot climates, or to hot seasons; a cause the action of which tends first to diminish, then to destroy the force of cohesion between the molecules of the blood. Hence the utility, according to him, of the rhatany which he recommends, either as a preservative or prophylactic, or as a curative means.

Let us recapitulate, in a few lines, the anatomical characters of yellow fever. As regards the nervous centers, there is nothing constant.

The evidences of cerebral disease pointed out by MM. Pariset, Ballege, François and Chabert, cannot be of much value, since this phenomenon, specified by them for the first time in 1821, has not been advocated since; may not this be a purely cadaveric effect, the accomplishment of which would be facilitated by the special alteration of the blood. 2d. The organs of respiration and the heart are but very rarely the seat of pathological alterations; hence they are generally but of secondary interest to the pathologist who studies the lesions of yellow fever.*

3d. In relation to the liver, and the gall bladder, the kidneys and the urinary bladder, there existed among distinguished practitioners, among skillful observers such striking contradictions, that we are induced to believe each epidemic yellow fever possesses its own peculiar character, its special shades of difference. 4th. There exists, in conclusion, two principal phenomena; the first consists in material lesions of the digestive tube, inflammation, congestion, as one would have it; the second is represented by the alteration of the blood, the fundamental basis of black vomit, of hemorrhages, either from the puncture in bleeding, from the nose, pharynx, or from those called intermuscular or gangrenous, of the rachidian ecchymoses of Pariset, and, according to many authors, of icterus itself.

We may demand, with M. Audouard, how it is that the pulmonary mucous membrane can enjoy so great an immunity, when the entire digestive mucous membrane can sweat blood, and when the tissue of the skin itself becomes permeable to this fluid.

(To be Continued.)

II.—*Ossification of the Basilar and Coronary Arteries in the same subject.*

In the *January* Number, 1850, of the *Montreal Medical Journal*, Dr. Gibbs reports an interesting case of ossification of the above arteries. The subject was a stout, plethoric individual, with a thick, short neck, and aged 63 years. Two and a half years previous to consulting Dr. Gibbs, he had a paralytic attack

* In a man who died of yellow fever in this city in 1841, we found the inner surface of the heart of a very dark mahogany appearance; the stomach was highly injected; the fauces inflamed, and the lining mucous membrane covered with a thick tenacious secretion; indeed, the lining membrane of all the passages was much darker than is found to exist even in ordinary inflammation.—*Translator.*

which affected his left side ; but he so far recovered from this seizure as to be able to walk afterwards without halting or limping. After this attack his health remained bad, and his left arm colder and more feeble than his right. When Dr. G. saw him, he was seated in the chair, speechless, and quite unconscious of surrounding events and objects. His eyes were fixed and gazing steadfastly ; breathing heavy ; legs and arms cold ; rigidity of the limbs. He had subsequently several similar attacks, during one of which his right leg and arm became rigid with the loss of all *voluntary* motion.

About the sixth day from the first seizure, he gradually sank into stupor, then coma, and died.

On inspection after death, the *basilar* artery was found completely ossified, and the other arteries of the brain were so to a modified extent. The ventricles (lateral) were filled with serum ; the septum lucidum and fornix were softened ; the pericardium contained half an ounce of serum, and the heart was covered with fat, empty, and *coronary* arteries were *ossified*, as in the brain. The walls of the left ventricle of the heart were hypertrophied and its cavity dilated. The aortic valves were thickened and much ossified, and ossific deposits were found scattered in patches along the arch of the aorta. The above is a condensed account of the case as reported by Dr. Gibbs to the *Pathological Society of Montreal*.—ED.

III.—*Puncture in Hydrocephalus.*

We abridge the following case from the January number, (1850,) of the *Am. Journal Med. Science*, copied from the *Prov. Med. Journal*. Mr. Kitsell relates the case of his own son, aged about eighteen months, laboring under effusion upon the brain. The little patient had reached the stage of convulsions ; frothing at the mouth ; opisthotonos, etc., attended, sometimes, with temporary coma. The father decided to puncture the membranes, during one of these convulsive attacks, as life was threatened at each return of these paroxysms. Accordingly, he introduced a trocar obliquely, to the depth of nearly two inches, at a point about an inch below the anterior superior angle of the left parietal bone, in the direction of the lateral ventricle ; forthwith escaped about sixteen ounces of limpid colorless fluid, which he declares acted "like magic," in relieving all the threatening symptoms. The wound was kept open for four or five days, in order that the fluid might be discharged as fast as secreted. The child entirely recovered.—ED.

IV.—*Nux Vomica in Impotence and Spermatorrhœa.*

M. Duclos has spoken very highly of the efficacy of the alcoholic extract of *nux vomica*, in impotence and its kindred affections. He was first led by accident to make use of this medicine, in the above complaint, and its good effects were so satisfactory, that he was induced to make them public. He divided seventy-five grains of the alcoholic extract into 100 pills, and of these he gave from one to five, two or three times daily. No unpleasant consequences attend-

ed the administration of the medicine ; in many cases it improved the appetite and gave tone to the entire system.

These observations were originally published in the *Bull. de Therapeutique*, but we condense them from the *B. and For. Review*.—Ed.

VI.—Antidote for Arsenic.

During the past year, while experimentalizing on the means of constituting the arsenic of commerce self-detective, my attention was in part directed to the discovery of an antidote, or antidotes, which could be more conveniently, if not more effectually, applied in cases of poisoning, than the only one which has hitherto been discovered—the hydrated peroxide.

I have not had an opportunity of fully completing these experiments ; but the vital importance of the subject leads me to direct immediate attention to two agents which, it is anticipated, will be found to supply the desideratum sought to be attained—the one is ferrate of potassa, or the ferric acid compound—the other the *dry* peroxide of iron.

It is found by experiment :—

1. That when one ounce of the ferric acid compound, forty grains of arsenic, and one ounce of water, are intermixed and well agitated, the supernatant fluid gives no evidence of the presence of arsenic by the usual liquid tests. After the lapse of a few minutes, the formation of crystals takes place at the bottom of the fluid, and indicates that the whole or a portion of the arsenic is neutralized.

These crystals possess a slightly acid taste, are insoluble in cold water, are not deliquescent, or subject to change on exposure to the air for several months.

2. That when one ounce of the ferric acid compound and forty grains of arsenic, in an alkaline solution, are treated in a similar manner, the supernatant liquid shows no evidence of the presence of arsenic by the same tests.

3. That when half an ounce of the *dry* peroxide of iron, five grains of arsenic, and one ounce of water, are agitated together, the supernatant fluid is without any evidence of the poison.

In the administration of the ferric acid compound, for the purposes in question, it is unnecessary to observe that no precise amount can be adhered to on merely theoretical grounds ; the quantity of the poison taken, or administered, is always uncertain ; and it is better in this instance to err on the side of excess. As to the chemical reaction of this compound on arsenic, I have nothing to observe really bearing upon the subject—further than to state, that it is my anxious wish it may prove as valuable practically, as it appears to do theoretically. The compound should be reduced to pulverization immediately prior to its administration. I cannot conclude these remarks without expressing my feelings on the subject to which they have reference—it is not antidotes that we require, how valuable soever these may be—it is a legislative enactment prohibiting the sale of so deadly a poison without the adoption of some precautionary measure—*i. e.*, without rendering it self-detective. It is therefore my opinion, that if the question is taken up by the able and worthy editor of the *Lancet*, and warmly agitated by the profession, the legislature cannot fail to carry out the views which I have expressed relatively to this subject.—*Dr. Cattell in Lancet*.—*Dublin Med. Press*.

VI.—*Arsenic in Sulphuric Acid.*

To the Editor of the Medical Press.

SIR—On looking over the last number of your valuable periodical, I was, I must allow, not a little surprised to find announced, as if it were but a recently ascertained fact, in an extract taken from the *Provincial Journal*, the presence of arsenic as an impurity in the sulphuric acid of commerce; the writer also asserting that the existence of this impurity is not noticed in any English work on chemistry.

Now, sir, independently of the slur such an assertion, if allowed to go uncontradicted, would cast on our national character as chemists, I conceive it to be but an act of simple justice to such of our authors as have written on these topics, to state that every chemist of the present day is familiar with this impurity; that notices of it are to be found in all the works which I have had time to consult on the point; and I for one vouch for it, that the learned Professor of Chemistry in the Royal College of Surgeons, Dr. Apjohn, in his valuable course of lectures, announced to his class, some years past, the existence of this impurity, and entered fully into all the details connected with the subject; whilst the melancholy and untimely death of the lamented Mr. Brittan, so ably recorded by my colleague, Dr. O'Reilly, is still fresh in our minds, his death having been occasioned by the presence of this impurity in the sulphuric acid employed by him in generating hydrogen gas for his own inspiration.

In conclusion, sir, permit me to refer your readers, in corroboration of these statements to the following works, where they will find this impurity fully noticed:

Kane's Chemistry, p. 399. Taylor's Medical Jurisprudence, p. 347. Pereira's Elements of Materia Medica, p. 355. Neligan, on Medicines, p. 38. Scanlan, Pharmaceutical Journal, August, 1844, G. O. Rees, London Medical Gazette, February 8, 1841.

I have the honor to remain, &c.,

RAWDON MACNAMARA.

95 Stephen's Green, January 5, 1850.

Nevertheless, it is well to tell people this important fact over and over again. It is obvious, that notwithstanding the notoriety of it, as here stated, every grocer in Dublin has his "vinegar" sharpened with the "oil of vitrol," and every owner of a dram-shop his whiskey doctored with the same, in addition to the Cayenne pepper. We have no objection to the poisoning of dram drinkers, but we think that eaters of salads and pickles should be protected. It is bad enough to have pyroligneous acid foisted on us for "white wine vinegar," but too bad to have that adulterated with sulphuric acid, and that again with arsenic. Yet when people are warned on this subject, they turn it off with a silly laugh, and think that it is "some nonsense of the doctors." At the moment we write, we find in the journals an account of slow poisoning by arsenic communicated to bread in adulterated muriatic acid used with carbonate of soda. Mr. Macnamara can do good service by exposing the poisonous adulterations of articles used for food and drink.—*Dublin Medical Press.*

VII.—*Homœopathy tested.*

Fiat Experimentum in corpore vili. Try homœopathy on the *profanum vulgus*, and risk not the valuable lives of the "higher orders." So say those who, is

the following be true, subjected "a few" of the poor patients of the Salpetriere and St. Louis to this experiment. Now we should have supposed that the experiment has had a fair trial already upon wise people volunteering their valuable persons for the purpose, but it appears that the proof was still wanted to show that the millionth part of a drop of laudanum or of arsenical solution cannot cure cholera :

"*Homœopathy and the Cholera.*—In deference to the assertions and large claims of the advocates of homœopathy, and in consideration of the comparatively small success obtained over the mortality of cholera by any method of treatment ; the administration of the Hospitals Salpetriere and St. Louis submitted a few cases to the homœopathic mode of practice, but the result did not warrant its continuance. The physicians report that all the cases proved fatal."—*L'Union Med.*

Now, we should be glad to learn whether any human being is authorized by the laws of God or man to practise thus on defenceless people, and to tamper with their lives, as if they were so many dogs. That feeble-minded men and fantastical women, in the hands of designing traders on human credulity, have been permitted to indulge their whims and gratify their vanity at the expense of defenceless relatives, young and old, we admit ; but they have been permitted because the law, as at present administered, cannot be made to reach them. That in the eye of God, and in the opinion of every man of common sense, those who permit relatives to die before their faces without affording them the chance at least of medical aid, are criminals, cannot be denied ; and that they who administer these nonsensical drops and globules in dangerous diseases, do permit the unfortunate victims of their knavery or credulity, as the case may be, to die before their faces without medical aid, is equally certain. As we lately observed, it is the temper of the times to deal leniently with these delinquents, and to give them credit for some honesty of intention, attributing their misdeeds to error of judgment rather than to depravity of mind ; there has been a coquetting with them, looking very like a yearning after their meretricious accomplishments. We participate not, however in any such weakness ; neither do we yield to the screw which the silly advocates of this folly are turning upon the members of our profession. We propose to deal with the parties as they deserve.—*Ed. of Dublin Medical Press.*

VIII.—Means of arresting the fatal effects of Chloroform.

M. Ricord has lately addressed a letter to *L'Union Medicale*, wherein that eminent surgeon relates two cases, in which the inhalation of chloroform proved nearly fatal. He, however, succeeded in reviving his patients, after all ordinary means had failed, by placing his mouth upon theirs, and forcibly insufflating the lungs by rapid aspirations and expirations. Though somewhat repulsive, this means should not be overlooked. Another medical practitioner of Paris, Dr. Escallier, has written on this subject, and states, that in two instances of approaching dissolution by the inhalation of chloroform, he recalled life by thrusting two fingers deep into the throat, down to the entrance of the larynx and œsophagus : a sudden movement of expiration followed, and recovery took place.—*London Lancet.*

IX.—*Puerperal Fever.*

It has, of late been again proposed, in France, to use injections of tepid water into the uterus, to control the fatal effects of the metro-peritonitis following labor. Dr. Roche advocated this treatment in 1844, in the *Gazette Medicale*, stating that he had met with great success by adhering to it, and M. Gensoul, of Lyons, gave it as his opinion, a few days ago, in *L'Union Medicale*, that phlebitis of the uterus is often brought on by the detritus and clots stagnating in the womb, and that warm douching, in removing these, contributed largely in keeping off the fatal effects of the uterine inflammation.—*London Lancet*.

X.—*Ice in Ophthalmia.*

Our readers are aware that M. Chassaignac, of Paris, treats infantile purulent ophthalmia by cold water douching. This gentleman has lately advised, in the *Gazette des Hopitaux*, the use of ice in various kinds of severe ophthalmia. A great number of affections of the eye have been thus treated, ranging from the ophthalmia which succeeds operations for cataract and to external violence, to hypopium and the most intense inflammations of the cornea. The author has arrived at the conclusion that the apparatus of vision is the one which illustrates, in the highest degree, the power of continuous applications of ice. M. Chassaignac does not, however, advocate the exclusive use of the ice, and advises the ordinary therapeutic means to be combined with it. It is applied by means of a kind of orbital mask of wirework, secured by a spring, the pad of which presses on the occiput. The mask is composed of two layers, between which little bags of ice are introduced.—*London Lancet*

METEOROLOGICAL REGISTER OF NEW ORLEANS, FOR 1849.

BAROMETER.						THERMOMETER.					HYGROMETER.					DRYING POWER OR FORCE OF EVAPORATION.				
1849.	Maximum.	Minimum.	Average.	Range.	Average of D. Range.	Maximum.	Minimum.	Average.	Range.	Average of D. Range.	Maximum.	Minimum.	Average.	Range.	Average of D. Range.	Maximum.	Minimum.	Average.	Range.	Number of Saturation.
January.	30.42 on 19th	29.85 on 8th	30.176	.57	.06.93	79 on 13th	33 on 10th	58.97	.41	10.87	73.60 on 15th	26.57 on 11th	52.40	16.73	8.29	29.36 on 20th	* on 3 ds.	12.47	29.36	Twice.
February.	30.51 " 19th	29.70 " 11th	30.166	.81	.08.46	77 " 1st	28 " 19th	56	.49	11.96	67.18 " 2d	15 " 17th	15.83	52.18	6.90	30.18 " 27th	0 on 8th	9.70	30.18	Once.
March.	30.28 " 1st	29.72 " 21st	30.033	.50	.06.51	80 " 10th	47 " 22d	66.18	.33	10.27	72.02 " 21st	31.35 " 26th	60.62	37.67	1.51	15.67 " 27th	1.15 on 11th	9.81	11.22	Not once
April.	30.23 " 8th	29.77 " 28th	30.057	.46	.04.83	78 " 7th	14 " 16th	67.03	.34	10.7	70 " 6th	38.56 " 17th	69.37	31.14	3.47	15.65 " 20th	0 on 5 days.	9.83	30.18	5 times
May.	30.15 " 3d	29.74 " 16th	29.947	.41	.05	85 " 25th	61 " 11th	74.01	.21	9.51	75.65 " 4th	60.17 " 29th	68.19	15.18	4.16	23.88 " 29th	0 " 6 "	6.59	23.88	6 "
June.	30.15 " 19th	29.80 " 5th	30.001	.35	.04.68	83 " 8th	71 " 1st	79.33	.17	8.17	78.56 " 9th	69.20 " 19th	74.47	9.36	2.62	15.31 " 19th	0 " 3 " †	5.35	15.31	3 "
July.	30.16 " 27th	29.89 " 23d	30.043	.27	.03.96	85 " 30th	73 " 12th	78.71	.12	5.88	80.72 " 25th	71.01 " 6th	75.53	9.68	2.72	14.81 " 29th	" " 13 " †	3.26	14.81	16 "
August.	30.14 " 13th	29.92 " 25th	30.017	.22	.04.25	87 1 day	74 2 days.	80.96	.13	8.87	81.80 " 18th	72.38 on 3 ds.	76.75	9.42	3.26	13.30 " 14th	0 " 14 "	3.10	13.30	13 "
Sept.	30.17 " 9th	29.76 " 8th	30.019	.41	.05.50	57 on 21st	65 on 8th	78.41	.22	9.33	79.72 " 3d	58.25 " 8th	73.78	8.92	4.41	21.20 " 8th	0 " 9 "	6.53	21.20	11 "
October.	30.35 " 30th	29.72 " 1st	30.050	.63	.06	83 " 1st	52 " 8th	66.63	.31	8.25	77.68 " 5th	49.99 " 8th	61.16	27.70	5.66	22.11 " 11th	0 ten times	6.55	22.11	10 "
November.	30.30 " 1st	29.83 " 30th	30.044	.47	.05	79 " 24th	46 " 26th	63.63	.33	11.13	70.55 " 24th	41.11 " 26th	57.71	29.41	5.83	25.75 " 27th	0 on 11 obs.	7.57	25.75	11 "
December.	30.35 " 31st	29.53 " 1st	30.098	.77	.08.74	78 " 21st	33 " 31st	57.33	.45	12.32	71.01 " 16th	21.36 " 31st	51.11	44.68	8.91	14.04 " 11th	0 on 15 "	5.15	14.04	15 "
Averages.			30.057	.48	.05.83			68.96	29.25	9.99			63.71	27.03	5.66			7.15	21.19	

* Means saturation. † In June about 7 days. ‡ In July 1 day.

ASPECT OF SKY.				WINDS.										Quantity of rain, in inches and hundredths.	Degree of moisture on the hygrometric scale, (saturation being 1000), average for each month.
	Number of days fair.	Do. Cloudy.	Do. Rainy.	Number of days from North.	Do. N. E.	Do. E.	Do. S. E.	Do. S.	Do. S. W.	Do. W.	Do. N. W.	Do. Calm.			
January,	15	13.50	13.75	6.75	9	5.75	3	2.75	0	0.75	1.50	1	3.715	802	
February,	17.75	7.25	3	6.50	12.50	2.50	2.25	1.75	0	0	1.75	0.75	3.060	730	
March,	16.25	12.50	1.75	1.50	8.50	3.50	5.75	9	1.50	0.25	0.50	0.25	1.718	718	
April,	20.25	8.50	1.25	5.25	6.75	5	5	5.25	1	1	0.25	0.25	2.955	774	
May,	22.25	5.25	3.50	4.25	4.50	5	3.50	11.25	0.50	0.75	0.75	1	1.270	824	
June,	15	5.25	1	2	3	4	2	8	5	1	1		3.250	853	
July,	10	10	5.75	2.25	3.75	6.75	4.25	8	0.75	1	0.25	2.50	11.741	913	
August,	21.25	3.50	5.75	4	1.75	2.25	0.50	11.75	2.25	5.75	0.25	2.50	4.473	903	
September,	17.25	9.50	3.25	10.75	10	3.25	0.25	4.50	0	1.75	1	0.25	2.600	845	
October,	17	7.50	6	7.75	3.75	5.25	1.50	4.50	0.25	1.50	5.75	0.25	6.450	819	
November,	19.75	7	3.25	8.50	4.75	0.25	3	1.50	0.50	0.25	1.75	0.25	3.945	799	
December,	10.75	16	4.25	17.50	2.50	4.50	0.75	7.25	0.50	0.50	1.75	1.50	2.365	845	
Totals,	202.60	90	58.50	357	66	70.75	64	31.75	76.50	12.25	14.50	19.50	355.75	55.442	821.33

NOTE.—The observations are taken four times a day—at day-break, 9 A. M., 3 & 9 P. M. Hygrometer at sun-rise, muggy, and 9 P. M. Rain is noted,—marking when it began, ceased, and then measured to 1600 part of an inch by a scale such as is used at the Washington City Observatory.

TABLE 1st.

A. Aggregate of all the Ages known of the mortality of 1849.

WHITE.				COLORED.				COUNTRY.	
Male.	F. male.	Male.	F. male.	Male.	F. male.	Total.			
Under one month,								Foreign,	3561
" one year,	300	179	74	65	618			United States,	503
" five years,	218	225	84	57	614			Louisiana,	29
" ten years,	367	336	98	105	903			New Orleans,	774
" twenty years,	154	117	36	35	342			Unknown,*	4985
" thirty years,	255	139	78	58	530			• Including negroes.	
" forty years,	1352	965	126	78	1991				
" fifty years,	1125	330	87	61	1603			D.	
" sixty years,	561	159	54	59	833			UNKNOWN.	
" seventy years,	222	84	28	48	382				
" eighty years,	105	37	13	19	191			Astoria,	1682
" ninety years,	38	31	13	19	101			" Orleans,	615
" 100 years,	8	14	10	15	48			" country,	4985
" 105 years,	7	4	2	13	20			" residence, either as	
" 110 years,			1		1			to length, or what part of	
" 130 years,					1			city, &c., so few as to be	
" Unknown,	813	338	325	206	1682			useless.	
Totals,						9862			

C.				E.				AVERAGE AGE AT DEATH.	
DURALS AT THE CEMETERIES.				F.				COUNTRY.	
Protestant,	371			From Cholera,	White, Col.	27.9	25.11		
Catholic,	985			" Plovers,		26.7	20.1		
Cypress Grove,	182			" Yellow Fever,		27.7			
Old Fellows,	5								
St. Vincent de Paul,	2438								
St. Patrick's,	1145								
Potters' Field,	1451								
Clarke Hospital,	2304								
Lafayette,	1841								

G.				H.				I.	
NO. OF DEATHS IN HOSPITALS.				J.				K.	
Clarke Hospital,	2743			By Cholera,	1269	206	1291	1609	3176
Maison de Sainte,	45			" Plovers,	290	27	1	16	306
Lazearburg Hospital,	29			" Yellow Fever,	580	34	0	2	171
Franklin,	43								
Cross St.	30								

Part Fourth.

AMERICAN MEDICAL INTELLIGENCE.

ANNUAL REPORT OF THE BOARD OF HEALTH.

Section 8th of an act to establish a Board of Health in and for the Parish of New Orleans, approved 16th March, 1848, is as follows: "And be it further enacted, &c., That it shall be the duty of the Board of Health to make an annual report to the several councils, as to the health of the city for the preceding year, and to suggest means for improving the same."

In compliance with the duty imposed by the above act, the Board of Health of the city of New Orleans, respectfully report to the several councils:

1st. The condition of the city as to health, during the year 1849.

2d. The suggestion of such means, as it deems advisable for improving the same.

The efforts of the Board have been incessant to procure a knowledge of the actual sanitary condition of the city, in the fulfillment of the first requisite, as without such knowledge, all attempts to improve it would be but groping in the dark; for that purpose they prepared and extensively circulated a set of by-laws, rules and regulations, with blanks for every purpose required by the Board; requesting physicians and others, whose duty it was made by law to prepare certificates to legalise burials, to give such information, as if complied with, would leave nothing wanting on this important department of their duty; the most urgent means have been used to obtain compliance, but they regret to say with unsatisfactory results, as will be seen hereafter.* If a city or country is ignorant of the diseases fatal to its population, if it does not know the age at death, sex, color, length of residence, occupation, and in what part of the city, death took place; it must be ignorant of one of its most important duties; that which is dearest to every human being, *its sanitary condition*, the influence of the place on the lives of the inhabitants;

the actual climate in which they live—the value of life there or “expectation of living;” on what portion of the population it bears with greatest or least severity, or what part of the city requires ameliorations; in fact, whether that community is advancing or retrograding in these important particulars: and all laws intended to benefit the sanitary condition without a previous knowledge of *what that sanitary condition is*, are deficient in the basis of all wise legislation and trifle with common sense. The Board excepts with pleasure from this implied censure, the cemetery reports emanating from the Charity Hospital, they have usually contained most of the information required. The deepest regret is felt at this omission, as we have few past records of what that situation has been, we are proceeding on ignorant of what are the actual truths, with a reputation abroad for perennial pestilence, with a boasting at home of unparalleled salubrity, it is high time the truth should be known. With the recent correction of the census, and knowing the probable number of the dead, we have at last arrived at the important facts of the *ratio of mortality*, it is large enough to remove the scales from the eyes of error: to excite curiosity as to its cause, and to demand of all those who have the interest of the city at heart, or value their own lives and those of their families, efforts to remove them. Had the information sought for by the Board, been obtained some years back, the actual influence of this climate upon the health of each and every class of the community, natives and immigrants, would be now accurately known—those parts of the city most sickly would have been pointed out, the effect upon different classes of maladies, originating here or imported would have been shown, and with equal and most gratifying truth, it may be said, in a great measure removed. Included in the information sought, were the facts intended to elucidate the curious and important investigation of the difference of the mortality and viability of whites, blacks and mulattoes, which probably can fairly be obtained only in this city; the result bearing upon the ultimate existence of the colored races in this country, of the possibility of ultimate amalgamation of the distinction of the races, and will materially aid in settling these important questions in anthropology.

All other modes of estimating the prosperity of a community are deceptive, it is in vain to look at the increase of the exports and the imports, its growth in area, its splendid architectural ornaments, even its increase of population, *all are illusory*, the true touchstone is its **SANITARY CONDITION**, the deaths to population, the average age at death, the real value or ‘expectation of life,’ for what is wealth without health, or continuance of life to enjoy it? immigration may fill up the gaps caused by death, a floating population may in a few months accomplish your principal commercial business, and your fine port may be but a depot for the exchange or barter of commodities for people living in different parts of the world, utterly indifferent to your interests. Such has been the history and such still is the condition of various marts of commerce in the eastern hemisphere.

We proceed to make the most of the data furnished, which have, nevertheless, great value.

It was also made the duty of the Board to keep a journal of the

weather, with all the meteorological details required by our position; and such a one is furnished. (Table 3.) The connection between mortality and meteorology is so intimate, that nowhere can they be independent of each other. Indeed, it may almost be laid down as an axiom, that climate is little more than the result of certain meteorological conditions, so, that by studying the latter, you can understand the former. We have here a peculiar climate, resulting from these conditions, influenced by a topographical position such as is not exhibited elsewhere in our country. These influences also bear upon a people, a large portion of whom, are not natives of the soil, and are to receive their climatural impressions here after attaining their maturity elsewhere. We are not now to learn for the first time, the connection of health with this condition; man learned it as soon as he became exposed to a variable sky. The entire extent of that influence is yet to be shown as science unfolds, with her observing eye, the great arcana of that atmosphere in which we live, and move, and have our being. In a moist and variable climate like this, no one doubts the indispensable importance of watching and studying all its phases. To suppose that such meteorological variations occur without influencing the health of man, is really stretching credulity beyond the bounds of sense and experience. To be sure, we do not know the precise amount of heat and cold, moisture, dryness, ventilation or stagnation of air, nor of barometric pressure that produces disease, or that is necessary for the attainment and continuance of the highest health; nor do we know the precise amount of filth or impure air an individual may be exposed to and yet survive; yet we know enough to see the influence of their excess or deficiency. The precise problem of constitutional susceptibility or vital resistance to disease, is individual in each and every case; still, our ignorance of one or the other should not prevent us applying the great principles of salubrity under whose laws, death is curtailed of one half, and, by statistical records, (in some countries,) of more than three-fourths of its victims: nay, that man under the guidance of these great laws, may approach, if not reach, the primeval period once allotted to his race.

We present you a chart (table 4th) representing these meteorological and mortuary details, and a single *coup d'oeil* will show you the bearing of one on the other. The upper part of the sheet, is the *climate of New Orleans*: the lower, the *result of the climatural influences*, with the addition of the consequences of impure air, engendered by filth and improper habits. It is mainly by these means, particularly in southern countries, that the great arcana of nature are to be understood, and elimatural influences on man developed and corrected. It is to be borne in mind that meteorological changes do not immediately produce death; but that the consequences follow after a due allowance for the period of sickness. Examined with this understanding, the effect is sufficiently obvious. The scales on the left side will exhibit the elevation and depression of the instruments showing the monthly extremes of heat, cold, moisture, dryness, the pressure of the atmosphere, the force of evaporation, and the fall of rain. The mortuary lines below show, by the scales, the weekly

mortality; each division being equal to five deaths. There are several of these: that representing the general mortality, is exclusive of cholera, as not belonging essentially to the climate, and has its own special explanation; and also all cases of death from other causes than disease or climatal influences, as drowning, wounds, still-born, &c. And, as the rise and fall of the river is supposed, in the opinion of many, to influence the health of the inhabitants, I have procured, from Professor Forshey, the beautiful diagram exhibiting the same, showing the period of inundation, the successive elevations and depressions, and the influence of the various streams upon it, which has been added to the chart, so that all might be embraced in the same *Coup D'oeil*. The crevasse, you will observe, occurred in the early part of May; in about — days reached the rear of the city, and rose as high as Carondelet street in June; and retired early in July.

The *Medical Constitution* of the year has been as peculiar as its meteorological. It has been in the midst of one of those great cycles of time which the recording hand of science has noted; in which great disturbances in both have been observed, with, doubtless, a marked bearing upon each other; giving rise to one of those great epidemic principles (constituting, in this instance, CHOLERA) which, at nearly stated lustra, prevails over the entire globe; extending from the east to the west, with varying divergence remaining at tolerably well established periods, and traveling at different velocities, with cholera, it has been calculated at about 17 miles per day. The birth of great precision in detail in regard to all these revolutions, (meteorological and mortuary,) is too recent to permit us to exercise that exactitude which science requires; nor is it necessary for our purpose. It has, nevertheless, been seen, that it has been uninfluenced by any obstacles presented by elevation or depression, mountain ranges or valleys, heat, cold, rivers, seas, or climates. The lower creation of animals of the field or the forests, the birds of the air, and the inhabitants of the great deep, have felt its all pervading influence. Nor has the vegetable creation escaped its wide spread desolation. All we can ascertain is, that like other phenomena, whether affecting man, or the great world in which we live, it follows certain definite, and, many of them ascertainable laws; as does the cause giving rise to influenza, small pox, also hurricanes, water spouts, thunder-storms, earthquakes.

With reference to the great epidemic principle giving rise to CHOLERA, whose devastations have been so severe throughout our country, it is some consolation to know (poor as that is) that it derived *no influence from our position*. Notwithstanding its originating in a latitude, climate, and on a great stream surrounded with swamps somewhat similar to our own, there are moral aspects, grades of civilization, and wide extension of comforts, that produce an immense bearing on disease, widely distinguishing our happy country from the down trodden millions of oppressed India; and the difference between that country and this, is almost as great as between the present and fifteenth century when plagues so often ravaged the earth, with a severity far exceeding that of latter times. It is further ob-

servable, that there is scarcely a large city in the Union where it has prevailed, that it has not been *more severe* than here, notwithstanding the peculiar character of our floating population. The littleness of man has been exhibited in puny efforts to arrest, by quarantine, the progress of a pestilence, that travels on the wings of the wind; but it has been found that the only stay to its devastation is in the rigid exercise of those rules intended for our preservation and benefit; and which, at the same time, rewards us for obedience to those great laws intended for our guidance. Medical science has done much for its relief; when left to itself, it is almost uniformly fatal; but, with our present knowledge of its preventatives, the scourge itself, to the prudent and temperate, (excepting in embarrassed constitutions,) is scarcely even to be dreaded. It is some consolation, then, in relation to this disease, which cometh and goeth under laws and conditions so little understood, that each individual carries his safeguard under his own control, in the correctness of his personal habits. The liability being individual, the municipal power can only aid by cleanliness and ventilation.

Accompanying the belief that, as it originated in a climate in many respects similar to our own, there was, probably, one feature common to both in which they participated, that being the prevalence of great moisture, from similarity of topographical situation; and that, consequently, it may be expected to remain permanently among us. By reference to the Chart, it is gratifying to perceive, that this is a great mistake; and that *dryness*, instead of *moisture*, has been so remarkable, as to appear to act in the line of causation. We had, during the worst of its devastation, a prevalence of *dry fogs*, once noticed by Humboldt, in passing the Andes, and centuries ago, by others, as accompanying (and probably causing) epidemic influenza; (the uniform precursor of cholera.) These lines of aridity (force of evaporation and low hygrometer) and cholera, are marked on the chart, and it really seemed that the disease declined as the moisture increased, and the rain fell!

The amount of mortality produced by it during the year, has been 3176, which has not been added to the general mortuary line on the chart, because really it has nothing to do with the climate, which that was intended to elucidate, any more than the drowned, still-born, &c., which have also been excluded from it; nor as having any bearing upon those sanitary ameliorations recommended in the second part of this Report.

It will be perceived, that the mortality from the class of **FEVERS**, the great outlet of human life in the South, is small, constituting about 14. 58. per. cent. of the entire mortality, of which, more than half (or 55. 30. pr. et.) is from **YELLOW FEVER**, and is embraced with it, as they both essentially belong to the place, and differ but little. Whether we shall ever get rid of the latter, is a problem impossible to solve with the lights at present before the profession; *we don't know its cause*; (*causa sine qua non*.) That all fevers, this inclusive, will be more rare as the

laws of general and personal hygiene are applied to communities and individuals, we know, from the results of actual experience, and, therefore, there is no doubt, as these improvements progress, yellow fever will, as already remarked by professional men, lose its individuality, and become blended with ordinary fevers; once, very distinctly marked, now, many cases puzzle the most experienced in its diagnosis; formerly, clearly an acclimating fever, (probably the only acclimating fever known;) now, so indistinct are its features, often, that many of the profession believe it can be taken over and over again, and that even, those "to the manor born" are subject to it. In Tropical countries, all unacclimated persons are subject to it at levels below 2500 feet above the level of the sea: and particularly, in the cities. In the West Indies, where civilization and refinement has progressed with the advancement of the age, we believe it is rare out of the cities. In Mexico, on the contrary, in its semi-civilized state, where the grossest personal habits prevail with the mass, the residents of the *tierras frias y templadas* are constantly subject to it when they descend below the limits above indicated, into the *tierra caliente*, or warmer regions. With us, then, there is every hope that, with the progressive improvements which are in accordance with the enlightened period in which we live, and which, of course, the public will adopt as soon as they clearly perceive them, we doubt not, that yellow fever will follow in the train of all the other sanitary ameliorations. From the imperfect data which exist here, in relation to the occurrence of fevers, and, indeed, all special diseases, in past years, we cannot arrive at any very positive results, but there is reason to believe, they have diminished in number, intensity, and mortality; most probably owing to the successive improvements in the city, and, particularly, to the clearing and draining in the rear. The line of mortality from these diseases is exhibited on the chart separately, as they particularly show the influence of climate.

The next class of diseases to which your attention is invited, is the PULMONARY; and here we have especially to lament that deficiency in the certificates, first noticed in relation to "*residence*;" many, doubtless, visiting this mild climate on account of its kindness to pulmonary invalids, and here falling victims to the disease already beyond the reach of art or climate, and adding to our mortality in that respect. The whole class amount to 876. Of these, CONSUMPTION embraces 592; leaving only 284 for all other pulmonary diseases! By the following table it will be seen, that notwithstanding the addition made to our mortality by immigrants and visitors with these diseases, yet we are more favored in these respects than any large city in this hemisphere.

	Death from Phthisis to Total Mortality.	Deaths from all Pulmo- nary diseases to total Mortality.
Philadelphia, - - - - -	14.84 pr. ct.	28.57 pr. ct.
New York, - - - - -	17.50 "	28.08 "
Havana, - - - - -	19.50 "	25.07 "
Boston, - - - - -	15.13 "	23.97 "
Baltimore, - - - - -	18.20 "	23.33 "
Charleston, - - - - -	18.27 "	22.73 "
Mexico, (city,) - - - - -	2.45 "	16.76 "
Norfolk, - - - - -	11.01 "	12.78 "
New Orleans, - - - - -	9.37 "	13.87 "

The above extraordinary results have been made from *official sources*. The Reporter took the years as he had access to them, mostly the year 1845; and, from most of them he deducted the causes of death *not diseases*, before he made the ratios.

This most unexpected result shows how singularly this city is favored in these respects. A line, indicating the influence of this climate upon these diseases, every week in the year, is marked on the Chart. This line conclusively shows, that the increased mortality is only apparent during those months in which the city is mostly visited by immigrants and strangers.

From this exhibit of the principal causes of mortality we proceed to refer you to the entire aggregate. It amounts to 9862; of whom, about 29 pr. ct. died in the various hospitals. See table 1st, G. From this deducting 3176 for cholera, and 372 from causes of death other than *diseases*, the nett mortality amounts to 6314; being at a ratio of 1 in 16.67 or 5.99 pr. ct. The stationary population being estimated at 105 347; being an increase of 5.32 pr. ct., annually, over the population of 1847, when the census was taken. This is a very large mortality: of course, a very considerable portion of it being derived from that mass of floating population, not enumerated in the census, and *which should have been stated in the mortuary certificates had they been made according to the request of the Board*, as this was the only mode of detecting this most important fact. To supply that deficiency, as much as possible, we have prepared a table exhibiting 1st, the number of burials at each of the cemeteries; showing upon what part of the population this mortality has been heaviest; 2d, the country from which each came or claim as birthplace; (this requires the explanation that the period of "residence" here is not stated, materially lessening its importance,) and 3d, the ages at death, which is most valuable, as evincing the influence of the climate at particular ages. See table 1, B, C.

Finally, we present you in detail, a table (5th) exhibiting every case of death that has occurred in this city during the year, classed according to the nature of the disease, sex, and color, in monthly parts. This instructive sheet will furnish you a better idea of the salubrity of the city during the period under consideration than all the speculations derived from partial information. It gives a full view of the influence of the climate and indicates, at successive periods of the year, the special maladies

that occurred, with the sex and color suffering from them, and enables us to compare one climate with another by the classification which is now generally adopted by the profession; all the important results to be derived from an examination of this table, we have been compelled to defer, except the above.

At table 1, A., are the ages of the dead; and at G., the number that died at the hospitals, amounting to 2892.

II. From this exhibit of the city mortality for the year, we proceed to the second part of our duty; in "suggesting means for improving the same." Great as that mortality unquestionably is, we entertain the gratifying conviction, that it can be in part remedied.

There are several causes for the insalubrity of the city, (independent of those of personal habits, in not adapting them to the demands of the climate, with which, however, this Board has nothing to do,) the principal of which are GREAT ELEVATION OF TEMPERATURE, VENTILATION, UNDUE MOISTURE, and FILTH.

In a climate where, for nine months in the year, we have an average temperature *in our dwellings*, of $72.81\ 100^{\circ}$, and *without* the least reflected temperature it is possible to obtain, circumstanced as the city now is, of $80.40\ 100^{\circ}$; every mode by which we can procure protection from the direct and reflected rays of the sun, would add much to the comfort, and greatly to its salubrity; this is easily accomplished by planting trees throughout the streets of the city, as has been done in most of the Northern cities, where they require it less than here; furnishing shade and pure air during the day and absorbing noxious gases during the night; and by authorizing the erection of verandahs or sheds, throughout the streets, and particularly on the levee, where is the greatest exposure of the unacclimated population; or, as in tropical countries, by making the streets very narrow. It is perfectly obvious the more we make a city approach the country of its vicinage, as to heat, ventilation, dryness and cleanliness, and all those conditions which conduce to purity of air, and of course salubrity, we shall in the same proportion, improve it. The relative salubrity of the country, in the neighborhood of the city, is not recorded; there are no data: probably there are few rural districts in the United States more healthy, which is a convincing fact that the climate is not injurious *per se*, but becomes so from super-added conditions; (we shall see what these conditions are;) there is now a probability that the facts necessary to establish the comparative salubrity of all sections of our country, will be embraced in the decennial census of this year; in the meantime, as the position is an important one and conviction would greatly aid the argument, we present a table exhibiting such comparisons as we have at hand.

The average age at death in Mass., excluding Boston, '42-'8 was 31 years.

•	"	"	"	while in Boston, it was	-	-	-	21.64.
	"	"	"	in the State of New York in '47, was	29.9			
•	"	"	"	in city of N. York, 1838-42, & '47-'8	19.9			
	"	"	"	in England,	-	-	-	29.64.
	"	"	"	in London,-	-	-	-	27.

The detail of the Registrar General of England shows that, between

the rural and town districts of England, there is a difference of 40 per cent. in favor of the former.

The deaths to population was in London,	- - -	1 in 39.
" " " in the country, (Surrey)	- - -	1 in 55.
" " " in Sweden,	- - -	1 in 44.
" " " in towns,	- - -	1 in 28.
" " " in Belgium, (country,)	- - -	1 in 46.9.
" " " in " (towns,)	- - -	1 in 36.9.
" " " in Austria, (country,)	- - -	1 in 30.
" " " in Vienna,	- - -	1 in 21.
" " " in France,	- - -	1 in 39.9.
" " " in Paris,	- - -	1 in 33.

Fortunately for us here, our climate, as well as the character and necessities of our people, are alike averse to great density of population; it is impossible to know what is the ratio per house, as the *number of houses is unknown*.

It is known also that various parts of cities are more unhealthy than others, there being local conditions and influences, affecting health and mortality in one part, which are often absent in others. So sensible has the Board been of this fact, that it has made efforts to procure them through the mortuary certificates, but so far utterly ineffectually.

But of all the external causes affecting the salubrity of the city, probably *moisture* and *filth* are more instrumental than all others combined, and it is consolatory to know that these two great agencies are sufficiently under our control for all the purposes of utility; hazardous as this assertion seems to be, we proceed to demonstrate that it is not altogether so chimerical as it appears.

This liability to undue moisture arises from our being surrounded by swamps, large lakes and rivers in our neighborhood, but particularly the former, which doubtless furnishes nine-tenths; this moisture is indicated by the hygrometer, (as well as the rain guage,) and is exhibited on the chart, and is more particularly referred to in the Meteorological Table in the appendix, it is independent of rain, and is sometimes greatest in months when least falls.

It is demonstrated, as the result of experience, from what has not only taken place in the great Mississippi Valley, but also in the island of Cuba, in Egypt, in South America, and elsewhere, that in proportion as a country is cleared, so does it become dry; it is more exposed to the evaporating power of the sun's rays and influence of the winds. By draining and cultivation the lands *have risen* in the rear of the city at least ten inches,* and such, we are informed, is the experience on the river everywhere. But again, as the city limits extend,* these consequences are farther made obvious. A city, particularly if well paved and sewered, is much drier than its neighborhood, unless there are blind alleys to interrupt ventilation: the reason of this is very obvious, for water falling on the impermeable roofs and streets is directly carried to the covered drains: it is no longer, on the surface, subject to be redissolved in the atmosphere; the moisture on

the roofs and in the back-yards is soon evaporated, and the air is speedily dry and elastic again; such is the explanation of the process, and it accords with the facts. This city although but partially in this protected condition, (not having covered drains, and the wretched pavements and uncovered streets retaining, and constantly giving out a great deal of moisture,) yet from the experiment of our rain gauge here, and of one some twenty miles below, kept by Mr. Morgan, less rain, by from twelve to fifteen per cent., falls here than there, and less is retained; the air is probably drier (when ventilation is not obstructed) and comparative hygrometric experiments will ere long demonstrate the fact. The theory of an upward current, from the combustion of a large city, being productive of that condition, resulting in rains, is hardly often applicable in a position where a stationary atmosphere, (the second essential condition) is so very rarely present—caused, doubtless, by our vicinage to the sea, the alternations of land and water around us—but, above all, by the rapid current of our great river washing, with resistless impetuosity, the extensive base line of the city. Hence, then, it is palpable, that by removing the forest growth of the neighborhood, accompanied by a perfect system of drainage, the city and neighborhood would be much drier. But there is another still more effectual, which carries with it the incalculable advantage of *removing all the filth of the city*, at the same time that it protects it from undue action of the sun's rays, and that is by a system of *sewerage*. The difference of level between Levee street, and the (late) swamp beyond Broad Street, is about eleven feet, the basin and canals of the draining company are seven feet lower, making eighteen feet; or from Roman Street, two squares below Claiborne Street to the bottom of said basin, say seven feet; the distance in each case being about a mile, the consequence is that underground drainage could be made from about Levee Street, letting in the Mississippi River at ten to eleven feet below high water mark, by drains constantly open, which would produce a current to Roman Street, the distance of about a mile, more than twice as rapid as the Mississippi at high water, and from Roman Street to the basin of the draining company, more than three times as rapid, and of course three times as strong; a force amply sufficient to keep itself perfectly clear and remove all the filth and offal of the city. This will be made clear by reference to the diagram accompanying this, (Table 2d,) to which has been attached the level of the river, the streets, the swamp and lands referred to. Was more force wanting here, it might be obtained by deepening the basin, just as deepening the outlets at the Balize would, besides removing an obstruction to the rapid emptying of the river, increase the fall and at the same time, the velocity and force of the current, and aid materially in discharging the waters from above, and thus protect lower Louisiana. We had prepared another diagram of the rise and fall of the river during the last twenty years; but an absence of a few years made a gap in our Journal, that prevented our using it, but we have been kindly furnished, by our friend Prof. Forshay, with a diagram derived from Journals kept by Messrs. Sargent, Davis, and himself, for three series of 10 years each, making a consecutive series of thirty years,

and reduced to the level of the river opposite this city; from that interesting diagram it is made evident that only during a little more than two months in the year, viz: from the first week in September to the third week in November, the water in the river is not more than five feet above low water mark, or in which there is not an ample supply of water at the levels referred to, for all the purposes contemplated or required, and during the two months in which the water in the river is too low, a stationary power could be used for the purpose.

We have not been able to procure an estimate of the expense of a few leading covered drains, by which these important results would be obtained; but it is not too much to say, that a perfect system of sewerage and drainage, embracing the city and neighborhood, would be cheap AT ANY PRICE, for they at once remove *all the known causes of disease* under the control of the public; filth of every kind and almost every where, and undue moisture! The present system of police is a mere mockery and deception, leaving the public here, and those interested in our city abroad, under the impression that its salubrity is unimprovable.

The benefits to be derived from sewerage are so palpable from what has been said, and so clearly in accordance with all experience, that here it might safely be left; nevertheless, it has been so forcibly put in the following statement of the examination of the distinguished Dr. T. Southwood Smith before a Committee of the House of Commons of England, that we thought we could not do better than make a short extract from it; he "declares that in every district, in which the fever returns frequently and prevails extensively, there is *uniformly bad sewerage*—a bad supply of water—a bad supply of scavengers—and a consequent accumulation of filth; and I have observed this to be so uniformly and generally the case, that I have been accustomed to express the fact in this way. If you trace down the fever districts, on a map of the Commissioners of Sewers, you will find that wherever they have not been, there fever is prevalent, and on the contrary, where they have been, fever is comparatively absent." And, "again" he adds, "many days' experience convinces me that a very large proportion of these evils is capable of being removed, and that if proper attention was paid to sanitary measures, the mortality of those districts would be most materially diminished; perhaps in some places *one-third*, in others *one-half*!" If these remarks are applicable to the city of London, in latitude $51\frac{1}{2}^{\circ}$, with its fine climate, where it is more than twice as salubrious as it is here, how much more so is it to this city, at latitude 30° .

The removal of street and back yard filth, according to an ordinance of the city councils, and the strong and urgent recommendation and even entreaty of this Board, has been essayed in vain; in fact, the proper and effective cleansing of the city; its effectual drainage, so far as to ascertain how these conditions influence the health and well-being of the inhabitants, HAS NEVER YET BEEN TRIED! The offal from the houses, has not been removed from the streets at the periods directed by the Board; the filth scraped up into masses, has been suffered to lie for days, often until washed into the gutters by rains, or scattered by

carts and drays, the gutters left choaked up by filth,—the river water, and that from the Commercial Bank water works, (the latter bound by its charter to furnish it for the purpose,) have not been used but in the most partial manner, while by them the gutters could always be kept clean, and at small cost. It has been computed, with great force, that a rain of a few hours in London, will do the cleansing of a hundred thousand men in a week! Here we have abundance of water always at command, *merely at the expense of letting it through the levees, and opening the plugs of the hydrants*, yet this most essential cleansing and purifying duty is neglected! It is hardly credible, with a mortality exceeding any city in America, and mainly attributable to removable causes! The Board considers it its sacred duty to the public to speak plainly; it is nearly the only power it has; it can point to causes affecting the salubrity of the city, but it has no power to remove them; as at present constituted, it is little more than a Board to notify the public of the advent and termination of epidemics, and to record such information, as those who attend the dead please to make. These facts have been ably stated in the preceding annual report of the Board, but no consecutive action has followed thereon; we repeat them, and warn our fellow citizens of the direful consequences that must continue to result if the whole wretched system, (which would be injurious to health even at the latitude of 50 °, much less at 30 °, and on a soil robbed from the swamps,) is not radically changed.

We have thus spoken freely of the climate, its influence on the inhabitants, and requirements necessary for its amelioration, and no labor has been spared that the details so far as the Board could procure them should be laid before those whose business it is to have them corrected, (with a conviction of more than 25 years standing, constantly confirmed by superadded facts and reflexions,) that this city may be made, all that the most sanguine desire it, not by supineness, nor by boasting, but with the resolution of men who thoroughly understand what they have undertaken, and permit no trifling obstacle to retard them in their determined purpose, discarding forever that fatal creed which palsies the hand of improvement and retains us in the statu quo of the bigoted Turk.

We have said above that the ameliorations recommended should be accomplished at *any cost*, it belongs to your surveying department to calculate in figures the cost of digging and laying down in brick and mortar, the proper conduits for, those poisons, that now destroy life and injure the property and of course the prosperity of the place; commercial men know the injury they sustain by their goods and produce being stored or exposed in a moist atmosphere, for a longer or shorter period, and how much such a state of things injures the commercial mart abroad. Owners of real estate know or ought to know, the difference between a damp sickly city with a ratio of mortality for the last ten years of about 1 in 20 annually or 5 per cent., and one where it ought not to be more than half that. There is no stimulus in the present constitution of society like self-interest, when properly enlightened it is true wisdom, to correct an error we must first see it, look it full in the face and not dodge it, or evade by ingenious explanations, we have endeavored to point out facts the true basis of all reasoning upon this subject, the

pecuniary bearing resulting from it all ought to be acquainted with. There are some other effects of this condition more strictly appertaining to this Board's constitution, which cannot be overlooked, they are such as the whole community is interested in; and first and foremost, if the sanitary condition is improved, in the additional years of "expectation of life" (to use the title of the statistician,) in a gain in that respect of 5, 10 or 20 years, dependant somewhat upon each one obeying the laws of personal hygiene, while the public authority is taking care of those of general hygiene. 2d, in the cost of sickness, of this, so far as physician's fees, nurses and medicines are concerned, we take no account, as it is merely exchanged from one citizen to another, but it is the value of the time consumed, with his industry, skill, &c., this is not only lost to the individual but to the community, as this is but the aggregate of the individuals composing it, if 5 per cent dies annually, it is a very small calculation to allow two to be *constantly sick*, where the mortality is one, (which is the rule,) ten per cent then of active, enterprising, intelligent life, (such as we have here beyond all other populations on the face of the globe,) withdrawn constantly from productive business every year, is a serious loss to the community, which in its aggregate is perfectly startling! As however, every community must be subject to sickness and death, it is hardly fair to debit the city with the whole as inevitable, our own impression is that the mortality is at *least double* what it ought to be, were such improvements made as science, observation and experience point out, and humanity and interest demand. Hence then both directly or indirectly has a sickly country, retardations to its prosperity, wealth and influence, which are perfectly plain to all who will venture upon the investigation of what is considered the abstruse subject of vital statistics. It would be perfectly superogatory to dwell upon the value of health to any place; it is admitted, without a dissenting voice, that no blessing can be enjoyed without it; if large cities have been denominated, "the graves of mankind," it has been with too much reason, both experience and calculation sanction it, but still they should not be unnecessarily so; it is perfectly apparent in this investigating age, what has made them so, and that they proceed from causes that are in a great measure removable. Were there not great social and intellectual advantages from them (as well as pecuniary) men would not willingly, with a knowledge of these facts, thus multiply the sources of their own mortality, by congregating together, and it is well known that the population of many cities is maintained by immigration alone; but it is a poor compliment to an intelligent rich and free people, that the love of thrift is stronger than all the numberless enjoyments which health produces.

In every view we can take of this subject, our interest warns us to take lessons from the past; neither wealth, rank, nor influence can escape the consequences. The removable causes of diseases which afflict mainly the laboring population, hover like avenging angels over the heads of those in more elevated circumstances; besides the vast demands upon their pockets and sympathies, which no portion of the community is beyond the reach of. Such is the inevitable result in sickly cities, in

larger spheres of action, the multiplication of the miserable in one class quickly shows its devastation in another. The French laid Egypt and Syria waste, the plague cut them off by regiments—the Egyptian Ophthalmia blinded thousands all over Europe, the Russian army was completely paralysed in a late Turkish campaign by plague at Adrianople—the black death followed the victorious army of Cressy into England, and what army, however triumphant in one sense, but has been constantly haunted by the spectre disease, carrying of twenty victims to one by the sword; this painful truth has been but too recently enacted before our eyes in the brilliant but deadly campaign in Mexico; history is full of such examples, if man will only open his eyes, and apply them. If the cities of India had been well constructed, the country properly cultivated and the habits of the people good, instead of being down trodden by the iron hand of oppression, and treated as beasts of the field, cholera would probably never have desolated the four quarters of the globe and the towering pride of the loftiest power that intellectual man has ever seen, even now totters to its fall from an oppression in Ireland, nay, under her very nose in “happy” England and in India, the like of which defies the records of history and the naked facts of which stagger the credulity of the present day. But it is thus, that an all seeing eye avenges oppression and punishes misconduct, and it is thus that he gives lessons to nations and warns them of the consequences of their misdeeds.

But there is another view of this subject which can neither be overlooked by the philanthropist, the patriot nor the christian, and we trust it will not seem like ‘traveling out of the record,’ briefly to notice it. It is a curious and pregnant fact that where there is great insecurity of life, whether from sickness or other causes, there is more or less corruption in morals; the value of life is little estimated; recklessness assumes the place of prudence and carelessness usurps the seat of sense, not only with regard to this world but the other, this is not only the case with the soldier and the sailor, but in the most sickly regions of the earth, where the annual mortality is from 1 in 2, up to 1 in 10, 20, 30 and so on. The mortality of the most fatal battles that fill the world with astonishment and produce *immortal renown* to the victor; is not so fatal as the *annual mortality* of some sickly city where but trifling efforts are made to prevent its recurrence. The blessings of our divine religion are here felt in its benign influences, the purity, cleanliness, moderation, temperance and the great moral restrictions it inculcates, enforce observances highly conducive to health. It constitutes one of those remarkable coincidences of the moral and physical laws which science from time to time points out. Indeed, it may almost be laid down as an axiom that the duration of life, and the observances of the principles of morality and religion go hand in hand, and it is our belief that the history of the world will bear us out in these views; nor is it at all extraordinary, for it is only saying that the rules laid down for the regulation of life in scripture, are in accordance with the organic nature of man. The historian of the great plague in London bears testimony to the frightful im-

morality; hardness of heart and savage recklessness which disputed with piety, contrition and repentance, the dominion over men's minds. The history of other plagues and nations farther illustrate the position, so undeniable is it, and such is the beautiful harmony that sustains all the works of God. The average life in no country reaches three score years and ten, announced in scripture as the period for the duration of the life of man. The average age at death in the northern cities, (doubtless owing in a great measure to the large mortality in infantile life,) is from 19 yrs. 9 mos. to 20 yrs., 3 mos., and in some of the cemeteries where destitute foreigners from the crowded parts of the city of Boston are buried, it is reduced to 13,49,100. In the south where it is so much more favorable to infantile life, the average age is much greater. In Charleston the average age at death is near 36 years. In Vera Cruz 24.6, and in the city of Mexico 27.7; while in the city of New Orleans the average age at death for the last year was 26.69.100, and in a series of years, the aggregate of all the cemeteries was 22,6.3. But to show the different influence of our climate upon the various classes of the population, the following table was constructed at great labor, (being all the data it was possible to procure.)

Cemetery.	Years Embraced.	Total Number of Deaths	Ratio average age at death.	No. above 80.	No. above 100	Gen'l Average
			y. m. d.			22.6.3
Catholic Cemetery...	1841, '42, '43, '44,	442	26 3 1	*51	10	
Protestant do.	1841 '2, '3, '4, '5, '6, '7, '8, '9,	1,445	24 9 1	15	1	
Potters' Field do.....	1841, '2, '3, '4, '5, '6	8,566	23 10 4	33	9	
Cypress Grove do....	1851, '2, '3, '4, '5, '6, '7, '8,	9 6	23			
St. Vincent de Paul, do	1842, '3, '4, '5, '6,	1,152	20 5 14	‡16	2	
St. Patrick's do.....	1841, '2, '3, '4, '5, '6, '7,	1,287	19 1			
Jews' do....	1847, '8, '9,	70	14 1			

Of all countries on record, the rural parts of England and Massachusetts are probably most favored with respect to infantile life, and yet in Massachusetts 40 per cent., and in England 47 per cent. die while they are going through the process of development, and before they enter upon self-sustaining life, in their 16th year. In New Orleans we have not the data to institute an exact comparison at these ages, but very near it; and we find that here only 36 98-100 per cent. die under 20! In this city, data of all kinds are very defective; we have, nevertheless, been able to construct a chart to show the real value of life here at successive ages, and at different periods of the year. It is too lengthy for this report. We may, however, state that it shows the extremely mild character of the climate at all periods of life under 20, and above 50, and during all months of the year, and that the chief fatality occurs from 20 to 40 (the ages of the immigrating population), and the period the latter part of summer. Notwithstanding all this,

* 11.51, † 2.23, ‡ 00.38. § 1.38.

the following statement shows that we have a larger proportionate population at the *productive age*, that is from 20 to 50, than the most favored parts of the world, viz: in every 10,000 in the U. States there are 3,708

" " " " Louisiana, 3,753

" " " " England & Wales, 4,028

While there are " " " " New Orleans, 4,924

From all the information we can procure, it is satisfactorily demonstrated that in countries where from climate, position and refinement a very small part of the population reach the age of their natural destiny, they approach it nearer in proportion as they obey laws which are adapted to the guidance of life: here, notwithstanding our deficiencies in many respects, sufficient is ascertained to hope for as near an approximation to the primeval age as any where, and reference to the table on the preceding page, showing the number of the dead above 80 and 100 buried at the Catholic Cemetery, (the chief cemetery of the ancient Creole population of the city,) will satisfactorily prove the fact. That the rupture of the physical laws should carry punishment (disease) in its train is no more extraordinary than the infraction of the moral laws should; the laws of man are often evaded, but with the physical and moral laws, the maker and executor being the same, they cannot be with impunity, so true then is it, that a prompt and exact obedience to these laws brings with it the blessings of health as well as all other blessings. This then is an additional inducement for us to make all those ameliorations in the condition of the city which will tend to improve its health, lengthen individual life, improve the standard of morals, add to our permanent population and so identify all with the country, as will give it the highest tone that society *requires* and *sustains*. Let us gather then the fruits of experience and learn wisdom from suffering, and like the fabled statue of antiquity with one face constantly on the past, we will have the other on that bright future when we shall be rewarded for efforts made to ameliorate the condition of our fellow-citizens.

(Signed.)

E. H. BARTON.

Y. R. LEMONIER,

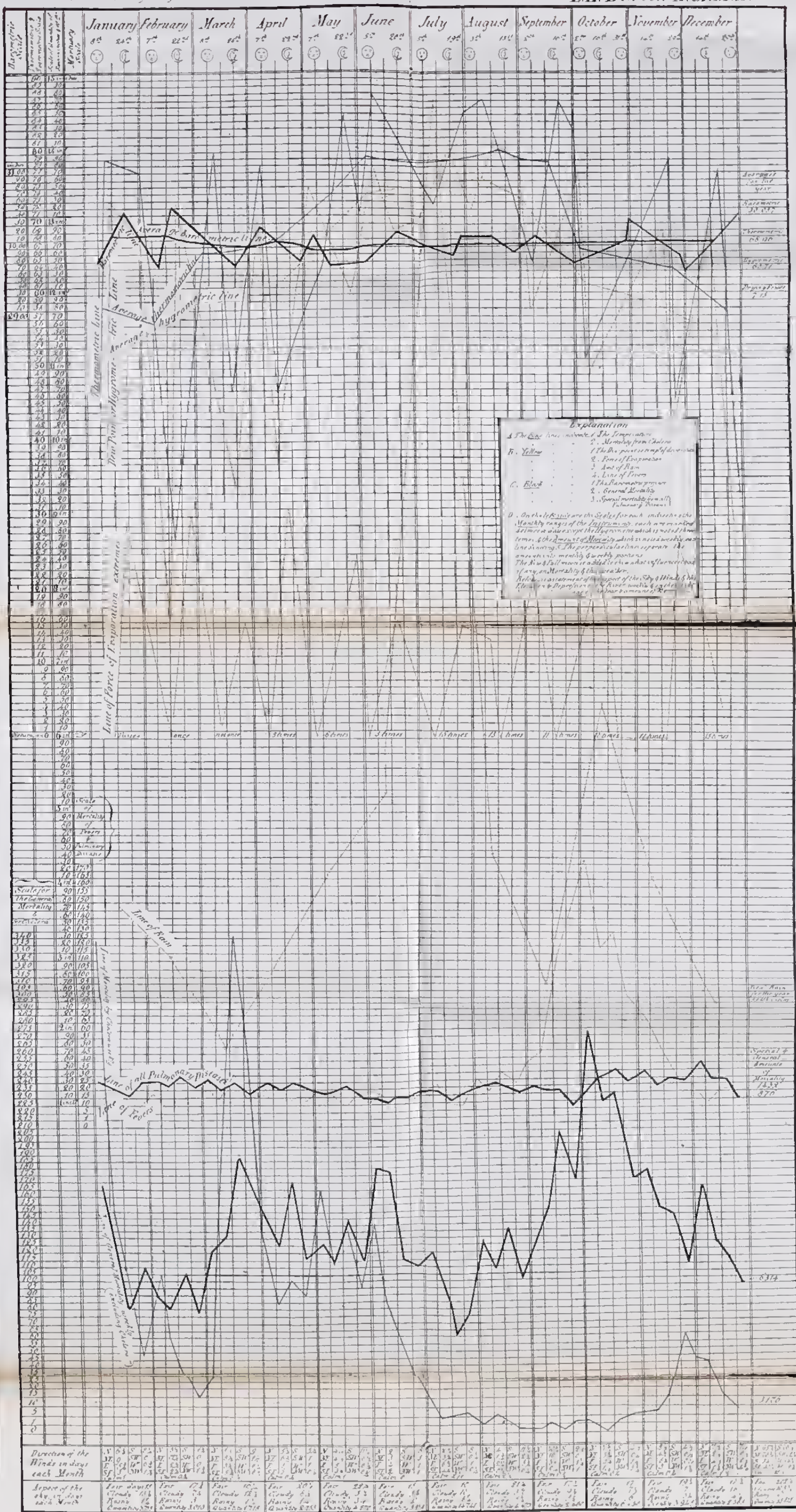
T. G. BROWNING.

CHART REPRESENTING THE METEOROLOGICAL

Prepared for the Report to the Board of Health

by *E. H. Barton A.M.M.D.*

Let D Theurer Exchange Alley N° 11



RISE AND FALL OF THE MISSISSIPPI RIVER

*from a Register kept at Carrollton
for the Year 1849*

by C. C. Forshey Esq.

II.—*Abstract of the Proceedings of the Mobile Medical Society: Office of Coroner; Cold Affusion; Blue Vomit; Intermittent Convulsions; British Oil in Erysipelas.*

MOBILE, Friday, Oct. 26th, 1849.

The committee appointed to inquire into the present method of appointing the Coroner in Mobile county, furnished through their chairman, Dr. Ross, an interesting report on this subject; in which was set forth the inadequacy of the present method, towards securing the services of any person capable of arriving at the true cause of death in many instances; and the incompetency of any other than a medical man filling the office so as to secure the best interests of the State, to carry out the intentions of the law, and to raise to a proper standard the dignity of the office. The report was adopted, and a committee of two was appointed to present the subject fully at the next meeting of the "Alabama State Medical Association."

Dr. Fearn remarked to the Society that he had seen a case of fever of a typhoid character. The patient seemed to be sinking rapidly. There was a weak, feeble pulse, cold arms, hands, feet, and face; lustreless eyes, and clouded intellect. The doctor resorted to cold affusion. He had ten or twelve bucketsful of cold water dashed over the patient, and the success of the treatment was complete. Reaction set in, and the patient from that moment rapidly recovered.

Dr. Fearn referred, also, to a case of remit. fever, in which, after a few hours' illness, the patient had thrown up a fluid of a *blue color*, which could not be accounted for by any article of diet, or otherwise, that had been taken.

Dr. Crawford detailed the particulars of a case of infantile convulsions of an intermittent character. The convulsions seemed to take the place of the chill in an attack of intermittent fever. He used chloroform to control the convulsions, and gave quinine to check the paroxysmal tendency of the disease. The child recovered. The use of chloroform did not add to the violence of the fever.

Dr. Hicklin said, he had been called upon to treat a violent case of erysipelas, in which the application of nitrate of silver and corrosive sublimate and many other remedies had failed. He had then resorted to the use of the British oil, which he applied freely to the inflamed surface, and with instant relief to the patient.

Reporter of Medical Facts; Delegates to the State Medical Association appointed; Ophthalmia; Nux Vomica in Asthma; Rupture of Ligaments of knee joint.

MOBILE, Friday, Nov 3d., 1849.

The following resolutions were offered by Dr. Ketchum, and unanimously adopted:

Resolved, 1st, That one member of this Society be elected to serve for one year as Reporter, whose duty it shall be to keep an accurate account of the prevailing diseases of each month; of all epidemics, their supposed cause and origin, their progress and duration; the peculiar circumstances and conditions of weather, &c., which would influence, or in any other manner control them; their treatment; their mortality, &c.; and that he shall make a report of the same at the first meeting in each month; and if the report be adopted, it shall be his duty to record the same in a book kept for that purpose.

Resolved, 2d, With the view of making the report as complete and as reliable as possible, that each member of the Society be requested to furnish the reporter with all the information in his power, bearing on this subject.

Resolved, 3d, That an annual summary of the facts exhibited by these reports be prepared to be read at the anniversary meeting of the Society, and if the information contained therein be deemed of sufficient importance to warrant it, that it be furnished the New Orleans Medical Journal for publication. Dr. Anderson was elected Reporter.

The subject of sending delegates to the meeting of the State Medical Association, to be held at Montgomery on the 2d Monday in December, was next brought forward. It was deemed very important that the Mobile Medical Society should be represented, and Dr. W. H. Anderson was appointed delegate, and as many others were requested to attend the meeting as could conveniently do so.

Dr. McNally observed, that he had witnessed quite an epidemic of prevalent ophthalmia, among the inmates of the Catholic Orphan Asylum. He had found much relief in several cases from binding a light silk handkerchief over the eyes, so as to exclude the air at night. He had observed, that during an attack of this disease, the children usually slept with their eyelids but partially closed, and that the atmosphere during this time affected the eye injuriously; and hence he resorted to the above plan.

Dr. McNally recommended, as a remedy of great value in chronic ophthalmia, an ointment of ung. hydrarg ʒss., kreosote from gtt. x to gtt. xx., brushed over the conjunctiva once or twice during the day. He had first seen this remedy used in Havana, and had since frequently used it with great success.

Dr. Miller said he had seen a very severe case of Asthma of some 15 years' standing. The patient had been subjected to many different plans of treatment, without having been permanently relieved by any of them. He gave him pills of nux vomica, two grains each, three times a day, and the patient seemed to be entirely relieved by the remedy. The paroxysms of dyspnoea gradually became less and less frequent, until now, they had ceased entirely.

Dr. Fearn remarked, that he had seen two rare cases of injury; both of them rupture of the ligaments of the knee joint. The first a child. The injury was first noticed the day after its birth. Dr. Fearn thought that in this case it was probably not the result of injury, but an arrest of development. The second case was a man about 35 years of age,

a teamster; was found on the road with the ligaments of the patella and also the ligaments at the back of the knee joint ruptured. The treatment in this case was perfect rest and a generous diet, as there seemed a lack of sufficient action in the parts to repair the injury.

Hepatic abscess discharging through the Lungs. Chloroform in Trismus nascentium. Imperforate Anus.

MOBILE, Friday 21st, 1849.

Dr. Hicklin related the particulars of a case that had fallen under his observation in the city hospital. A woman about 28 years old came into the wards complaining of severe cough; much emaciation; expectoration of much purulent matter; night sweats and hectic fever; the right lung was dull on percussion, and through its greater extent impervious to air. She was not benefited by any treatment, and died on the twenty-fifth day after her admission. A post mortem examination showed the right lung adherent to the walls of the thorax. On cutting into the substance of the liver, a large abscess was discovered opening into the lung, through a fistulous passage. The lung itself was a mere shell, and filled with pus; the bile was very thick, and of a dark green color. The patient had suffered three weeks from cough before entering the hospital.

Dr. Walkly stated that he had made use of chloroform in three cases of trismus nascentium to relieve the spasms, but without any good effect in either case. He could detect no displacement of the occipital bone, but the umbilicus in such cases was red and inflamed.

Dr. Ketchum detailed two cases of imperforate anus that had fallen under his observation. The first case died before any attempt at relieving it had been made. In the second case, the obstruction was a membranous formation just within the sphincter. The obstruction was complete, and the child was suffering from all the symptoms that such a condition of the parts would naturally produce. The operation for its relief was simply thrusting a lancet through the membrane, and making a sufficiently large opening. The puncture was followed immediately by the exit of a large quantity of dark green meconium, and much offensive gas. The relief to the child seemed to be almost instantaneous. Dr. Fearn remarked that the mention of these cases brought to his mind two very instructive cases, of a like character, that had fallen under his care some years ago. The first was a case in which the intestine terminated at or about the promontory of the sacrum; following the direction pointed out by nature, the child was operated on the third day after its birth; a small quantity of meconium stained the point of the instrument; a small quantity of flaxseed tea was then thrown into the opening, but no portion of it returned; a catheter was then introduced about three inches, and a small teacupful of the tea was thrown up through this, and again there was none returned; another injection was used, with the same result; the child

died. A post mortem examination was made, and it was found that the intestine had terminated just below the promontory of the sacrum; that there was no appearance of sphincter; that the space intervening between the points of the external orifice and the termination of the intestine was filled up by loose cellular tissue. The incision into the intestine was very slight; the catheter and the injections had passed under a fold of the peritoneum into the cavity of the abdomen; a small white, thread-like line was observed to mark the course that should have been taken by the rectum; this line led from the point where the external orifice should have been, to the point where the intestine terminated. The Doctor said that the white line proved the truth of the observation, that when nature failed to do her whole duty, she usually left some trace behind of the efforts she had made.

A short time after this case, he was called to a child presenting the same appearances; he waited until vomiting commenced, so that the contents of the intestines might be forced down into the *cul de sac*, formed by the termination of the intestine. On the third day, he thought it best to operate. The child was then placed in a good light, and a careful examination made; no fluctuation could be detected, and no trace of a sphincter ani. The white line observed in the other case, however, was discovered, and a conical incision was made, with this point as the center. A small silver thimble, with polished sides, which had been made for the occasion, was then introduced into this incision; this answered the double purpose of compressing the bleeding vessels, and of making the way clear for the next incision; another cut was then made on the white point, and another thimble was then pressed in, and so on, until the operation was complete, always having for a guide the mark left by nature, the small white line. After the operation, a tube was introduced, which was worn constantly for twelve months; it was, at the expiration of that time, taken out for a short time, but on account of the great tendency that the orifice showed to close up, it was found necessary to introduce the tube again. Repeated efforts were, in after years, made to dilate the opening, as there was frequently much difficulty in evacuating the bowels. Eventually, however, nearly all difficulty ceased, and the subject of these remarks is now a strong healthy youth of sixteen years of age, active and vigorous in both body and mind.

Erectile tumors in the Female Urethra—Epulis—Operation to relieve Deformity—Nyctalopia—Injuries affecting the Head.

MOBILE, Friday, Jan. 4th, 1850.

Dr. Walkly remarked that he had, during his practice, seen two or three cases of erectile tumors occupying the urethras of females, producing a very distressing train of symptoms, such as general derangement of the nervous system; profuse leucorrhœa; partial paralysis of the lower extremities, pain in the coccyx, aggravated by assuming the sitting posture, spasms of the urethra whilst urinating, and so severe, at times, as to produce almost complete retention of urine.

These tumors he found about the size of a pin's head, and of a bright crimson color. He removed them with the knife, or a pair of scissors, and freely cauterized the spot afterwards. After their removal, the unpleasant symptoms disappeared.

Dr. Fearn said he had once seen a tumor of the urethra that bled very freely, and produced, frequently, retention of urine. He finally cured it by applying to it constantly, the tinct. ferri-mur.

Dr. Ross thought that there was some resemblance between these tumors and those we see on the gums, and know as epulis. He had seen kreosote used, with success, for their removal, as in the following prescription; kreosote, $\mathfrak{z}\text{i}$; spts. vin. rect., $\mathfrak{z}\text{ss}$; aqua font., $\mathfrak{z}\text{vi}$., m. A tablespoonful to be taken three or four times a day.

Dr. Anderson detailed the following particulars of an operation that he had recently performed: A man applied to him, who, two years ago, had received an injury of the middle finger, by which the first phalanx was turned back at right angles to its true position, and was immovably fixed in that direction. The tendons of the flexors were ruptured, and consequently the deformity was very great, and very inconvenient; to relieve this the Doctor made an incision on each side of the bone, leaving the artery external to the incision. He then passed a cooper's needle around with a ligature, to which was attached a small chain saw, around the bone, and now having the saw around the bone and clear of the flesh and blood vessels, he cut through the joint, and brought the finger straight. The flexor tendons being severed, it was, of course, impossible to give him a joint.

Dr. Ketchum stated that a man had applied to him for relief from the following symptoms: Every evening, just at sunset, he would become blind, and continue so until the following morning, when he would be able to see as well as ever; during the night he could not see the brightest light. He stated that he was working on the Mobile and Ohio Rail Road, and that these symptoms had returned with the greatest regularity for four successive evenings; otherwise he felt perfectly well. He suffered no pain, and there was no appearance of anything unusual about his eyes. His tongue was slightly furred. A purgative of blue mass and rhubarb was given in the evening, and on the following morning fifteen grains of quinine were administered. There was no return of the affection from this time.

Dr. Fearn remarked that he wanted to call the attention of the Society to a class of cases which he thought should be watched very closely by the surgeon—namely, patients who had received violent blows or contusions about the head. He referred to two cases which had fallen under his care, where, after all the symptoms of the injury had disappeared, and several days had elapsed after the receipt of the injury, when suddenly they were seized with convulsions, followed in a short time by death. He thought that, in such cases, a watchful prudence should be exercised for several weeks after the receipt of such injuries.

III.—*Medicinal Vegetable Extracts.*

Messrs. Tilden & Co., manufacturing druggists, New York, have recently transmitted us a circular, with specimens of some vegetable extracts prepared at their celebrated steam-mills in that State.

The profession has long felt the want of *pure vegetable extracts* in the practice of medicine, as it is a notorious fact that these drugs, as usually found in the shops, are either inert, or adulterated; hence, their almost absolute exclusion from our prescriptions. Judging from the appearance, smell, taste, etc., of the specimens before us, and the very neat and beautiful manner in which they are put up, we feel authorized to recommend, in the most emphatic terms, the house of Messrs. Tilden & Co., New York, to the patronage of all our druggists and apothecaries, as well as to physicians who dispense their own medicines, and who desire a pure and neat article of the vegetable extracts. It is both the duty and interest of all interested to encourage the above house in their efforts to supply the profession with genuine medicines.

THE MEDICAL AND SURGICAL JOURNAL.

VOL. VI.]

NEW ORLEANS, MARCH 1, 1850.

[NO. 5.]

Health of the City, &c.—The winter, thus far, has been mild beyond precedent. The thermometer has rarely fallen below 36 ; and did not remain at this point beyond a few hours. In consequence of the unusual mildness of the winter months, we have suffered less than common from that class of diseases peculiar to our latitude and locality. Among eruptive complaints, variola has been, perhaps, the most prevalent ; rubella has likewise appeared from time to time, in different parts of the city, but it was entirely sporadic in its character, and mild in its nature. Typhoid fever has been quite prevalent in the public hospitals, but in civil practice, the cases have been few and far between. It may be remarked, by the way, that this disease is mainly kept up in the hospital by the frequent arrival of poor and afflicted immigrants from the shores of Europe. Throughout the season the river has been remarkably high, even threatening to overflow the levee at several points above and below the city. But whether or not the rise and fall of the Mississippi river exercises any material influence over the sanitary condition of this city, is a problem to be solved by future observation and a careful record of facts. We believe, nevertheless, that we may state, without the fear of contradiction, that the city is blessed with better general good health during the high state of the river, whether this be in summer or winter, than when low and contracted within its bed. We will not assert that these two facts stand in the relation to each other of cause and effect : we would not commit ourself to this extent. We continue our record of deaths for the last eight weeks.

	<i>Cholera.</i>	<i>Total.</i>
Deaths for the week ending Jan. 12th,	39	129
“ “ “ “ “ “ 19th,	29	141
“ “ “ “ “ “ 26th,	23	121
“ “ “ “ “ Feb’y 2d,	17	107
“ “ “ “ “ “ 9th,	6	107
“ “ “ “ “ “ 16th,	4	93
“ “ “ “ “ “ 23d,	2	86
“ “ “ “ “ March 2d,	8	106
Total,	128	890

This statement is exclusive of those who died in this city, and were transferred to Lafayette for inhumation.

For ample statistics of the health of this city, and meteorological observations for 1849, we refer the reader to the report of the Board of Health for that year.

Annual Report of the Board of Health for 1849.

We invite the particular attention of our readers to this important report, as opening the proper view to the understanding of the climate, and its influences upon its residents, (whether natives or immigrants.) For this purpose, the meteorology (which is properly expressed in the report as the "climate of New Orleans") is given in great detail, both on the chart and in the table; more so than any we have seen in this country; and the result or consequence of it is very properly expressed below. We have often expressed our conviction that our peculiar position subjects us to a great moisture, which is our distinguishing characteristic. The suggestions in the report to lessen this, (no doubt one of the most influential causes of our mortality,) supported as they are both by facts and reasoning, are entitled, in our opinion, not only to the consideration of scientific men, but to the public authorities, and to the public at large. To be sure, the first cost will be considerable, but then the advantages are numberless, and far more than commensurate, and, as our successors are to be particularly benefited by them, let them foot the bill.

The laborious and extensive table, giving a statement of the special monthly mortality, by colors and sex, will fill up all that could not be expressed on the chart in relation to the mortality. It is the first classified report of the mortality of any city ever published by a Board of Health, and will thus enable us to compare our position with any other in scientific works.

The numerous statistical statements which the Reporter has embodied could alone be procured from his extensive collection—the fruit of years of traveling and industry.

As a valuable statistical document, it will be consulted by the medical philosopher in every part of the United States; and the report, taken as a whole, will stand as a monument to the industry, talent, and perseverance of Dr. E. H. Barton, who drew it up.

New Orleans Medical and Surgical Journal. Our losses by the late Fire, &c.

By the late disastrous fire which occurred in our city, the office of the Medical Journal was entirely consumed, with a large amount of paper, books, back numbers, and other materials appertaining to our publication office. With no insurance to cover our losses, the disaster has fallen heavily upon us; the more so, as it was sudden and overwhelming; thus reducing to ashes more than the little profits that had accrued to the Journal after nearly six years' hard, almost incessant, labor. Our misfortune did not end with these losses: the fire extended to the store of our *binder*, in which had been deposited four or five printed forms of this number, ready for stitching. All this was entirely consumed, and had, necessarily, to be reprinted from the proof-sheets, which were, luckily, snatched from the devouring flames. Our subscribers will, therefore, understand the cause of our delay in issuing our *March* number, and we trust they will charge it to our misfortune, and not to our negligence. If we have been unfortunate, we are not despondent; but, gathering additional energy from our recent losses, we shall push forward the work with all that zeal and resolution which can alone guarantee ultimate success in any undertaking. To sustain, to encourage us, we appeal to our friends for their influence and assistance in our behalf. If our subscribers, and those partial to the Journal, will but use a little exertion among their friends and neighbors, our subscription list can be easily doubled, and the Journal at once placed upon a basis firm and immovable. We deprecate the practice of begging—of recounting one's misdeeds, in order to give additional force to one's claims upon the bounty of others; but, in this case, we shall try to return an equivalent for the patronage bestowed; we ask only for that which is in the gift of our patrons and friends to bestow without any essential loss to themselves. In conclusion; not unmindful of the many proofs of esteem and good will, and the handsome support extended to the Journal in the days of its infancy, and in the hours of its feebleness, we confidently invoke the redoubled efforts of our subscribers and correspondents in every way calculated to enlarge our circulation and extend the benefits of our common profession. Under the hope that they will cheerfully respond to this, we trust, not untimely appeal, we submit our case into their hands, conjuring them not to deal with us according to our demerits, but agreeably to the exigency of our misfortunes.

New Operation for Vesico-Vaginal Fistula.

We hasten to communicate to the profession that Dr. J. Marion Sims, of *Montgomery, Alabama*, has, after much labor, research, and considerable pecuniary expenditures, in devising and constructing in-

struments, discovered a new and effectual method for curing that truly loathsome and obstinate affection, *vesico-vaginal fistula*. With that assiduity and patience which characterize the labors of all men of genius, Dr. Sims directed, for more than twelve months, the energies of his penetrating intellect to the discovery of some more effectual plan of curing this hitherto intractable affection. We rejoice to say that his efforts, worthy of his talents, and glorious for his country, have been crowned with complete success; and we feel authorized to say to physicians having cases of this disease under their charge, to recommend them to the skillful hands of Dr. Sims, who has already operated on eight or ten cases, with entire success, some of which presented extensive loss of substance, and fistulas that had encroached upon the *bas-fond* of the bladder. If the profession fail to award honors to this accomplished young surgeon for his new operation, every unfortunate female who may be afflicted with this repulsive complaint will lisp his praise, and bless the day that gave him to mankind. The profession will, no doubt, be early favored by Dr. Sims with a minute account of his operative proceeding, when his plan may be tested, and its merits determined. In the meantime, we may be permitted to say, that Dr. S. did not hit upon his new operation *par hasard*, but step by step he advanced, and each succeeding operation was an improvement, a modification on the preceding one, until, finally, all the difficulties were, by turns, overcome, and success crowned his patient efforts.

M. Jobert, of the Hospital St. Louis, has recently published a new method of operating for *vesico-vaginal fistula*. *Vide Bulletin de Therapeutique, Fevrier, 1849; et N. Y. Jour. Med., Jan, 1850.*

A Case of Transposition of the Viscera.

About the middle of January, 1850, a man died in the Charity Hospital of this city with some form of bowel complaint: and, on inspection after death, it was ascertained, that several of the viscera were transposed. As little or nothing could be ascertained of his previous history, we must confine our remarks to the appearance of the cadaver. He was above the medium height, slightly formed, considerably emaciated, with œdema of the lower extremities; nothing else remarked in regard to his exterior habitude. The *heart* was completely transposed, being situated on the *right* side of the thorax; the *right lung* was divided into *two* lobes, whilst the left presented *three*. The *aorta* was on the *right* of the vertebra, and the *cavas* on the *left*; the liver was transferred to the left hypochondrium; the right lobe occupied the situation of the spleen, and the left was placed athwart the spine, and extending into the epigastric region, with the gall-bladder resting on

the left of the vertebral column. The spleen was found in the *right* hypoehondrium, at a point precisely opposite the position which it occupies in a normal state. The *caput coli* was found in the *left* iliac region; whilst the *sigmoid flexure* and the rectum were on the right, the latter descending on the right side of the pelvis, and not, as usual, on the left. We have not attempted to give a minute description of the precise position of the viscera in this singular case of transposition of the organs. We thought the case so rare as to be entitled to some consideration. The body was inspected in the presence of a large number of medical men, including some of the professors, and many of the students, of the University.

Lusus Naturæ—Singular Case of Union of the Sexes.

Through the courtesy of Dr. P. B. McKelvy, Surgeon of the United States Marine Hospital, at this place, we recently had an opportunity of examining a curious case of union of the two sexes in the same person.

The individual in question (we shall use the pronoun *he*) called himself Rose; aged about twenty-two or twenty-three years; nearly six feet high, and of proportionate physical development. He is a Scotchman by birth; has a twin sister perfectly formed; has resided in the United States for a number of years, and has led the life of a sailor.

Description.—He has the features and physiognomy of a female, without the slightest trace of any beard about the face; with a voice at once peculiar and decidedly feminine. The limbs are large; particularly the thighs and legs, but corresponding in shape and outline with those of a large, but well developed female, and without any traces of great muscular development. The chest is rather small compared with the pelvis, which is decidedly *feminine* in shape, form, and size. Indeed, the entire outline, from the apex of the head to either external maleolus, will give an admirable idea of a large, but well developed female. On this point there was no difference of opinion, although Rose was carefully examined in the presence of Drs. McKelvy, McCormick, Cross, and ourself. The *mammæ* were fully as large and perfect in every respect as those of a well grown adult female. Its structure was *glandular*, and not adipose; the *areola* about the nipple was very distinct, and clearly marked. There was no trace of *capilli* about the breast, on the limbs, or back, so characteristic of the male sex.

The *capillæ pubis* were fine, long, and rather sparse; and the *mons veneris* was large, prominent, and *strongly* marked. Of the external or-

gans of generation, we can only say, Rose had a well formed *penis*, but small, with all the usual characteristics of that organ. The *testicles* were scarcely larger than filberts, although apparently perfect in structure. The size of the testicles corresponded with that of the penis, not being larger than those of a boy twelve years of age. The *scrotum* was well formed, and some of the gentlemen present thought they could discern traces of the labia majora, or externa; but this is questionable. Rose has strong predilections for the female sex, and enjoys *coition*, which he has practiced a number of times. He discharges semen, or something like it, at each embrace. His passion for copulation exists only *three months* in the year, viz.: April, May, and June; during the remaining nine months he is quite indifferent to female company. At the beginning of each month he experiences all those unpleasant sensations and peculiar train of morbid symptoms, such as pains, and tenderness in the mammæ, headache, drowsiness, etc., etc., that usually precede or usher in the catamenial discharge in a regular healthy female.

Such is a brief, and, by no means, minute account of one of the most extraordinary bisexual cases that has ever come to our knowledge.

In conclusion, we may state, that during our examination of Rose, he exhibited all that modesty and sensitiveness which might be expected to characterize a delicate and respectable female in a similar situation. //

In the original department of the Journal, an interesting case of malformation will be found reported by Dr. Booth, of this State.

A Benevolent Fund for the Relief of Destitute Medical men and their Families.

Our feelings have long prompted us to invite the attention of the medical profession to the necessity of establishing a *benevolent* fund, to be applied to the relief of those members of our common profession and their families, on whom misfortune may lay her heavy hand. In a city like this, where health and life are constantly jeopardized, and where fortune does not always bestow her blessings upon the most deserving, the creation of such a *fund* will not only confer on us the luxury of doing good, but heighten and strengthen the bonds of good-fellowship and union which so happily exist among the medical men of this city. To relieve the wants of the widow and helpless orphan is one of the noblest aims of charity; but the duty is still more binding, and the pleasure sweeter, when those widows and orphans become connected to us through the strong ties of professional brotherhood. Let us obey the sacred injunction, and begin the exercise of our charity at home, in

the profession; here, we shall find ample scope for the display of those benevolent feelings which should always, and everywhere, characterize the cultivators of the healing, the divine art of medicine.

To the epidemic, which brings desolation, woe, and want to thousands, we are often exposed, alike regardless of ourselves and our families; and should the father and husband (doctors will sometimes marry) be stricken down, to whom shall his family, now cut off without support, and, perhaps, remote from relations, look for relief and consolation? Clearly, to that profession of which her husband was, perchance, a bright and shining ornament; and to the promotion of which he had devoted too much of his time and talents, to the neglect of his pecuniary interest. And shall we not make common cause with the needy and destitute in the hour of want and woe? In Europe, societies similar to the one about to be proposed have long been in existence, and in successful operation. In London, one has been established for the last fifty years, and now possesses a funded capital of \$225,000; it distributes annually among the widows and children of its deceased members about \$7,500. A similar benevolent society has been created in New York, under the auspices of Mott, Stearns, Stevens, Delafield, Post, Parker, and others scarcely less noted. The history of the London "Benevolent Fund" Society has developed the astounding fact, "that of the families of its members, deprived of their parental head, *nearly one-fourth* are left destitute and dependent upon this fund for support."

Are we more fortunate in the accumulation of the means necessary to shield our families from want than our brethren on the other side of the Atlantic? If not, it behooves us to adopt some plan by which to relieve those dependent on us for support in case of our death or disability. This done, the last moments of our existence would not be embittered by the painful reflection that we had bequeathed nothing but poverty and want to those near and dear to us.

Can any of us, around whose heart the holy ties of domestic affection are entwined, contemplate such a contingency without terrible misgivings and fearful forebodings for the future? If such there be, to those we do not appeal; but to such as love their families and seek the prosperity of their offspring, we know we shall not appeal in vain.

As to the first step to be made in the establishment of the "benevolent fund" for the relief of the families of deceased medical men, we would suggest that a petition be drawn up and signed by the members of the Physico-Medical Society, and the *licensed* physicians of the city generally, asking the Legislature, now in session, to allow the funds paid for licenses to practice medicine in the State and city to be diverted to this noble and charitable purpose; to the creation of a benevolent fund for the purposes above stated.

The twenty (\$20) now paid by physicians for license to practice medicine, surgery, etc., in the city and State, go into the treasury of the Charity Hospital; but when it is remembered that the above amount is frequently wrung from those who are "poor indeed," thus taking from the needy to give to the indigent, (perhaps,) the true objects of charity are perverted, and we but transfer, not relieve, the misfortune. Is it not

enough that the physicians of the city give freely and cheerfully their time and services from day to day to the Charity Hospital, but in addition to such services, they are taxed twenty dollars to support that noble Institution, which is already handsomely endowed, and has ample means for its support at this time? The sums funded to the Hospital out of the license tax, are wrested from a class of men who perform more arduous and heavy labor *pro bono publico* than all other professions combined; and when disease and want press upon our heels, to whom but the members of our own profession can we look with any assurance of relief? Assuredly, not to those whom we may have served in the days of our prosperity and popularity.

Almost every trade and profession in all our great cities have established *benevolent societies* for the relief of such members and their families as may chance to come within the scope of their benevolent object.

Let us, then, follow the example of the artizan, the mechanic, and the trader in this laudable scheme, that we may be enabled to relieve the widow and offspring of a deceased brother practitioner who, perhaps, sacrificed his life in the honest discharge of his sacred professional duties. Without wife or family ourself, we cannot be accused of cherishing any selfish feeling in urging this matter upon the serious attention of our medical brethren. We believe it a sacred obligation resting equally upon us all, to bind ourselves in a holy cause for mutual assistance, mutual relief and protection. We might suggest a plan upon which the contemplated *benevolent fund* should be based; but space will not permit us to develop it at present.

Jaundice in an Epidemic form.

We have received a communication from an intelligent correspondent, Dr. N. G. Pittman, of *Rocky Mount, N. C.*, in which he states, that *jaundice* had prevailed, in that vicinity, as an epidemic. Now, as jaundice is merely symptomatic of a particular lesion of the liver and its associate organs, it is, nevertheless, interesting to observe that certain atmospheric constitutions, to use the language of Sydenham, should act upon a particular organ of the body, producing invariably a peculiar lesion of secretion.

We apprehend, however, that the cases observed by Dr. Pittman, and reported as jaundice, were examples of bilious remittent fever, in which the liver was the suffering organ—the organ on which the morbid impression was chiefly expended. But, it may be asked, why is not this symptom manifested in the same disease at all times? It may be answered that the same morbid agents will act upon this or that tissue, this or that organ of the body, according to the constitution of the atmosphere, prevailing at the time.

Thus, pneumonia, diarrhœa, gastritis, etc., etc., may be engrafted upon intermittent and remittent autumnal fevers; these are facts quite familiar to the southern practitioner, but we are not prepared to state that such complications are witnessed in northern latitudes.

In his letter to us, Dr. Pittman says, "Jaundice has prevailed in this place (Rocky Mount) and its vicinity, in an epidemic form, which is something rare. I have seen about forty cases, during the last ten weeks, some of them, however, were complicated with intermittent fever. They all yielded to a mild mercurial and tonic (vegetable) course of treatment."

This communication was dated January 13th, 1850.

Remedy for Threatening Mammary Abscess—Milk Abscess.

R.—Linseed oil, one oz., Honey do. do. To be stewed over a slow fire, at a moderate heat, until the flour has become converted into a paste, and completely incorporated with the honey and oil. While warm add to this one ounce of camphor, ground into a fine powder, with a little sulphuric ether or strong alcohol. Mix the camphor with the paste intimately, and spread a plaster on a piece of cloth or cotton; apply this to the inflamed breast and keep it on night and day until relief is obtained. It is well to take the plaster off every morning and sprinkle about a drachm of finely powdered camphor over it; then re-apply as before.

(Dr. Wilkinson, of the parish of Plaquemine, speaks in high terms of the above application in the early stages of milk abscess, or rather in cases where the inflammation of the mammary gland threatens to terminate in an abscess. If applied in the forming stage of the affection, he assures us it will seldom fail, especially when assisted by suitable constitutional treatment.—Ed.)

Quarterly Report of the United States Marine Hospital, for the quarter ending December 31st, 1849.

ADMISSIONS.

Diseases.	Oct.	Nov.	Dec.	Diseases.	Oct.	Nov.	Dec.
Abscess, - - -	1	1	2	Hemorrhoids, - - -		1	
Amaurosis, - -			1	Head, disease of -	1		
Aneurism, (Int. <i>Illi</i> ac)			1	Intemperance, - -	1		1
Ascites, - - -			4	Incontinence of Urine,			1
Burn, - - - -		1		Lumbago, - - -	1		
Bronchitis, - -			4	Laryngitis, - - -		1	
Consumption, - -	2	2	1	Neuralgia, - - -		1	
Cephalagia, - - -		1		Ophthalmia, - - -		1	2
Chanc. Phagad -	2			Orethritis, - - -	1	2	
Condylomata, - -			1	Ptyalism, - - -	3	1	1

Contusion, - - -	2	Phymosis, - - -	1			
Carbuncle, - - -	1	Pleurodynia, - -	1			
Cholera, Asphyxia, -	1	Paronychia, - - -	1			
Caries of the ribs, - 1		Rheumatism, - - -	9	12	15	
Debility, General - 6	3	Stricture Urethra, - 1			1	
Diarrhœa, - - - 2	8	Syphilis, - - - 16		20	17	
Dysentery, - - - 3	6	Spleen, chronic en-				
Delir. Tremens - -	1	largement of - - 2				
Fracture, (Inf. Maxill,)	1	Scirrhus Testicle, -			1	
Fracture, (vertebra,) 1		Tonsillitis, - - -			2	
Fever, Intermittent 22	19	Ulcer, - - - - 1	4	5		
" Remittent - 2	4	Variola Confluent, -			1	
" Typhoid, - 2	1	Nas. Excrescences,				
" Yellow - - 17	4	(Venereal,)- - -		1	1	
" Acclimating	1	Wounds, (incised,) 2	2	2	2	
" Chagres - 1						
Gastro-Enterite, - - 1				107	102	103
Gonorrhœa, - - - 7	4	Total, 312.				

Discharged during the quarter ending

Dec. 31st, 1849. - - - - -	87	83	96	Total, 266
Died during the same period, - - -	8	5	6	" 19
Total, - - - - -				285

Died of	Oct.	Nov.	Dec.	Died of	Oct.	Nov.	Dec.
Ascites, - - - -		1	1	Laryngitis, - - -			1
Aneurism, (inf.) - -			1	Fracture cervical vert.,		1	
Cholera, Asphyxia, -			1	Phthisis pulmonalis, 2	2		1
Dysentery, acute -			1	Variola, (confluent,)			1
Fever, yellow - - 4					-	-	
" bil. remitt. - 1				Total, 19.			
Fever typhoid, - - 1							

RECAPITULATION.

Remaining in the Hospital, October 1st, 1849, - - - - -	7
Admitted to January 1st, 1850, - - - - -	313
	389
Discharged to January 1st, 1850, - - - - -	266
Died, " " " " - - - - -	19
	285-285

Total remaining in Hospital, Jan. 1st, 1850, - - - - - 104

SIR: I submit for your use the above *analytic* report of the Marine Hospital as you have desired. With great respect,

Yours truly,
P. B. McKELVEY; M. D.

A. HESTER, M. D., &c.

THE
NEW ORLEANS
MEDICAL AND SURGICAL
JOURNAL,
DEVOTED TO MEDICINE
AND THE
COLLATERAL SCIENCES.

EDITED BY
A. HESTER, M. D.

MAY, 1850 .

"Summum bonum medicinæ, Sanitas."—GALEN.

NEW ORLEANS:
PUBLISHED BY WELD & CO., NO. 68 CAMP STREET

.....
1850.



Our Correspondents will please send in their communications for the July number of the Journal. We again request them to condense as much as possible. Short and practical papers are preferable to communications extended to a tedious length. Our aim is to be brief and to the point; and to this end we solicit the aid and co-operation of our friends.

We have received, besides our usual exchanges, several valuable Journals from abroad; also the following books and pamphlets for review:

We have received *reports* from the Alabama Medical Association, through the Secretary of that Society, Dr Sims; also a communication from Dr. J. C. Clark, of Alabama. All our exchanges have been regularly received.

I.—An Address before the Medical Faculty of Alabama. By Edmund J. McGehee, M. D. Subject, The Duties of the Medical Profession to the People, and the duties of the People to the Medical Profession. Macon, Ga., 1850.

II.—Address to the Graduating Class of Rush Medical College, on the Nature, Utility, and Obligations of the Medical Profession; delivered February 7th, 1850. By John Evans, M. D. (Published by the Class.) Chicago, Ill.

III.—Annual Catalogue of the Medical Department of the University of Louisville—Session 1849-50; and Circular of the ensuing session. (*From this Circular we perceive the Class of 1849-50 reaches the large number of 346 matriculants.*)

IV.—Electricity as a cause of Cholera, or Epidemics, and the relation of Galvanism to the action of Remedies. By Sir James Murray, M. D., T. C. D. and Ed.; R. C. S. Edin.; Inspector of Anatomy, Marion Square Dublin, —1849. (Through the courtesy of Dr. Farrel, of this city.)

V.—An Introductory Lecture to the Students in Indiana Medical College. By A. B. Shipman, M. D., Professor of Surgery in Indiana Medical College. Session 1849-50. Laporte, Indiana, 1850.

VI.—Letter of Gail Borden, jr. to Dr. Ashbel Smith, setting forth an important invention in the preparation of a New Article of Food, termed Meat-Biscuits; and the reply of Dr. Smith thereto; being a letter addressed to the American Association for the promotion of science, to be held in Charleston, in March next. Galveston, Texas, 1849. (From Author.)

VII.—Report of the Pennsylvania Hospital for the Insane, for the year 1849. By Thomas S. Kirkbridge, M. D., Physician to the Institution.

(From the Author)

VIII.—A Lecture, Introductory to the Course on Surgery, delivered at the Massachusetts Medical College, in Boston. By Henry J. Bigelow, M. D., Professor of Surgery in the Medical School of Harvard University. Boston, 1850.

(From the Author.)

IX.—Annual Circular of the Medical Department of the University of Louisiana, New Orleans. Session of 1850-51.

X.—Valedictory Address to the Graduating Class of the Medical Department of Transylvania University, at the annual commencement, March, 1st,

LIST OF PAYMENTS

MADE TO THE N. ORLEANS MEDICAL JOURNAL SINCE
THE PUBLICATION OF LAST NUMBER, TO DATE.

Dr. Abernathy,	\$5 00	" Kelteyer,	5 00
" Arbuckle, W. W.,	5 00	" Kennedy, H.,	5 00
" Alpuente,	5 00	" Larche, N. E.,	5 00
" Andrews, David,	5 00	" Lipscomp & Love,	5 00
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" Jones, O. S.,	5 00	" Wood, Geo. B.,	5 00
" Johnson, M.,	15 00	" Zehender,	5 00

*LIST of Contributors to the Sixth Volume of the New Orleans
Medical and Surgical Journal.*

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 " J. B. Porter, Surgeon, United States Army.
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 " J. B. Pigne, Louisiana,
 " Wm. A. Booth, do
 " Thos. Peniston, New Orleans, La.
 " Chas. Delery, (2) do do do
 " A. M. Porter, do do do
 " C. S. Farrar, Jackson, Miss,
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 " F. A. Bates, Alabama,
 " W. H. Anderson, Mobile, do
 " Y. M. Mason, do do
 " F. C. Gorden, do
 " F. N. Mason, Wetumpka, do
 " E. D. Fenner, New Orleans, Louisiana,
 " W. P. Hort, [3] New Orleans, La.,
 " James Jones, do do
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 " W. B. Johnson, Marion, Alabama,
 " F. E. Gordon, do do
 " N. Bozeman, Montgomery, do
 " H. M. Hunter, Esq., Mobile do
 " R. Lee Fearn, do do

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THE NEW ORLEANS

MEDICAL AND SURGICAL JOURNAL.

VOL. VI.

FOR MAY, 1850.

No. VI.

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THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

MAY, 1850.

Part First.

ORIGINAL COMMUNICATIONS.

I.—RESEARCHES *on the Nervous System—Sensation, and the relation between nervous matter and the objects of impression.* By the late Professor JOHN HARRISON, M. D., of New Orleans.

(Continued from the March Number, 1850.)

Sensation combined with Desire.—Sensations are said to be active and passive. Thus, we are constantly seeing many things, hearing many sounds and experiencing other sensations which we take no notice of, and cannot remember, if told of them the moment after. If, however, when we see or hear any thing, the wish of examining it arises in the mind, our sensations become more vivid and distinct. This state of the mind is termed ‘attention.’ When spoken of in connection with sensation, it is a mere desire combining with the sensation existing in the particular case. Hence, there is a great difference between *looking* and *seeing*, *listening* and *hearing*, &c. Why our sensations should become more vivid and distinct when we desire they should do so, is not explicable. At least, all we can say is, that the very existence of the desire supposes a peculiar condition of the nervous substance; which condition renders it more fit to undergo those changes on which sensation depends. The nervous substance unaccompanied by desire exists

in a certain condition; when, if impressions be made on the periphery, a change occurs in the sensorium. But the nervous substance when desire *does* exist is a very different condition from what it was in the first instance; so that impressions on the organs produce much greater changes in the sensoria. In desire, then, the nervous matter exists in a condition resembling that occurring in some diseases, where the slightest impressions produce pain.

But observe that the distinctness of our sensations, as influenced by attention, has limits. For if the desire be intensely strong, it absolutely puts a stop to our perceptions of outward objects. Another action seems to be induced in the nervous substance rendering it unsusceptible of those peculiar actions on which sensation depends. If our interest be very great in what is about to fall from the lips of another, ten to one, we cannot understand what is said. If something is about to escape from our vision that we earnestly desire to observe, and we strain all our powers to perceive, we grow blind to the object, and everything becomes confused before us. Persons of an irritable habit, or of the nervous temperament, as it is called, experience these efforts much oftener than others.

Rectification of one sense by another.—If we put an oar obliquely into water, our sense of sight informs us, it is bent; the sense of touch, however, would tell us that it is not. Withdraw the oar, and the sense of sight is itself corrected. Hence we learn to attribute the phenomenon to its proper cause; and this we do by means of the reflective faculties. Sight, again, is said to rectify the sense of touch; when a pea is placed between two fingers of the same hand, the sensation is that of two peas; we see, however, only one. We therefore inquire into the cause of the illusion, and discover that two portions of the nerves of touch receive an impression at the same time.*

In all cases of this kind the rectification is a mental process, assisted, to be sure, by the other senses.

Education of the Senses.—The senses are said to be capable of education; for instance, in wine bubbles, we sometimes see the sense of taste give impressions so delicate yet at the same time so distinct, that many of them can tell with their eyes shut, not only the kind they drink, but the vintage from which it came. In persons born blind the sense of touch grows remarkably acute. In the deaf and dumb, ideas are furnished by the sense of sight so rapidly as to seem a matter of in-

* What are called 'illusions of the senses' are of three different kinds, having each of them a different origin.

1. The first is when an external object really makes an impression on the nerves; the deception being due to a resemblance, or an imitation of known phenomena: e.g. ventriloquism, fata morgana, feats of necromancers, spectre of the Brother, &c., &c.

2. In which there exists a morbid condition of the sensoria or the sentient nerves, as in many cases of hypochondria, in the ocular illusions related by Nicolai, &c.

3. In which there exists a morbid state of the brain, which reacting on the sensoria, confounds or entirely changes the nature of the sensations received. It occurs in monomania, as when Don Quixote mistook the windmills for giants, &c., &c.

stinct; the slightest movement of the features being to them a visible language.

In these instances we only see examples, in which actual sensations become more delicate and discriminating; but there are other cases in which sensibility is increased to such a degree, that a clear and distinct sensation is obtained of what was before really imperceptible. Let us illustrate this position by an example. An Indian and white man, lying together in the woods, the former hears the sound of footsteps and refers them with unerring accuracy to the quarter they come from, whilst to his companion all is total silence, though the cause, being an outward physical one, must have reached the ears of both; yet by long roaming the forest the senses of the white man will grow as acute as those of the Indian.

What will account for these phenomena? Not, surely, attention alone; for however much we may desire to perceive a difference in wines which we are assured are not identical, we may not be able to succeed; and however earnest the white man may be to hear the sounds his companion tells him of, it may be impossible for him to do so, unless he has long walked the forest.

Nor can the phenomenon depend altogether on mental operations; for we can only compare and discriminate between sensations actually perceived. An analysis of a complex state of mind in which many sensations co-exist, might direct our attention to a particular one which before we had overlooked; but it will not account for the formation of a habit. For instance, such an analysis may explain how, by mental labor, the white man at last arrives to the perception of sounds, a few moments before inaudible; but it does not explain how, by long residence in the woods, he attains a power of distinctly hearing sounds, imperceptible to most other men, and of which he himself had and could have had no suspicion beforehand.

We have seen, however, that attention within certain limits renders our sensations more vivid and distinct. And we have also seen, that a frequent repetition gradually produces a change in the nervous substance itself.* Now, to bring about such a change, it is immaterial whether the cause be internal or external; whether they be emotions or objects of impression; for any habitual condition of the nervous substance must of necessity affect at length its constitution, by changing its relations with the nutritive fluid.

Here, then, we have the solution of these phenomena. The constant exercise of attention has produced, in the nervous substance, a change, and exists thereby in such a condition that it is susceptible of undergoing affections, which before it was incapable of. These and similar cases are, therefore, exceptions to the law advocated by Bichat;† namely, "that habit blunts the sensibility;" for this rule only holds when the sensations are uncombined with desire.

* See section of the present chapter, entitled "Relation between the nervous matter and the objects of Impression."

† *Recherches sur la vie, et la mort.* Art. Cinquième.

We have now finished the consideration of the agents immediately concerned in the production of sensation. These agents, we have remarked, are the objects of impression, the nerves and the sensoria. In the physiological condition of the system, these three things are requisite; but it must not be forgotten, that the nerve is merely an organ of communication between the other organs and the sensoria; so that it matters not for the mere production of a sensation, whether the object of impression be presented to the outward organs, to the nervous cord, or to the sensoria. That such is really the case we have abundant evidence from the phenomena of dreams and those developed by pathological lesions, within the cranium; a mere change in the relations of the nutritive fluid and the nervous substance of the sensoria, producing morbid sensations without number.*

At the commencement of the present chapter, we remarked that sensations were modified by the organs in which the nervous matter was finally expanded. We are now to consider these modifications of sensation.

When treating of the nerves of sensation, we remarked, (and at the same time gave the grounds of such an opinion,) that the olfactory, optic and acoustic nerves were, in all probability, differently organized from those other nerves of general sensation. That is, they were fitted, by their structure and chemical constitution, to be affected respectively but by one species of substances. We further observed that the nose, eye and ear were apparatuses seemingly adapted to concentrate the particular objects of impression upon each respective nerve. A detail, therefore, of the functions of smell, sight, and hearing, would be a detail of the minute particles of bodies, of optics and acoustics, together with the mechanism and mode of operation of the external apparatus. These subjects pertain to special physiology, and are therefore foreign to the present treatise.

"What particularly," says Bichat, "fixed my attention upon the difference of pain of which each system is the seat, was the question of a man of great mind and coolness, whose thigh was amputated by Desault; he asked me, why the pain he felt when the skin was cut, was wholly different from that which he experienced when the flesh was cut through, in which the nerves, scattered here and there, were divided by the knife; and why this last sensation differed entirely from that which was felt when the marrow was divided. This embarrassed me then, when I was wholly engrossed in surgery, and had studied physiology but little; I have seen since, however, that it is to be referred to that general principle of which I have already spoken, and which determines that as each system has the peculiar kind of animal sensibility in a natural state, it has also in a morbid state, that is to say, in pain."†

Observation and experiment lead us to believe that every part of the human body except the nails, epidermis and perhaps the hair, develop

* See note E. "Sensation as modified by the Organs."

† General Anatomy, vol i., p. 208.

sensibility under certain circumstances. Therefore, it is very probable that they all have nerves communicating with the sensorium. We say very *probable*, because there are certain parts, as the ligaments, tendons, cartilages, serous membranes, &c., into which anatomists have never been able to trace nerves; and it has been strenuously denied that they even develop sensibility; that on the contrary the pain we attribute to them is really caused by the inflammatory action affecting the neighboring parts, or the nervous cords passing over them.* These opinions we cannot agree with. Because, in the first place, the very fact that these organs are subject to inflammatory action, is proof enough that they possess nervous matter combined with their other organic elements. Secondly, the extreme prostration, general nervous derangement, and peculiar kind of sensations attending lesions of these organs cannot be accounted for by such a doctrine. And thirdly, that these organs in a healthy state may be cut, pricked, burned, &c., without developing sensation, is no proof whatever that the same organs may not give unequivocal evidence of sensibility, when their nervous substance exists in quite a different condition, as it most certainly does, when the parts are inflamed. It seems to us more rational to suppose, that these organs possess nerves as yet undiscovered. In truth, the bones, until of late, were in the same predicament; no nerves could be found entering them. Dumeuil, however, at length discovered them and pointed out their route.

We will state it as fact, then, that the nerves of general sensation enter into all parts of the body except the nails, epidermis and hair;† and that the impressions made by the same substance on different organs are not transmitted to the sensorium in the same way, the quotation above cited from Bichat, and numerous pathological facts, sufficiently prove. In truth, we see a nervous cord coming from the spinal marrow and by radiation distributing its branches to the muscles, the skin, the cellular tissue, the bones, the mucous membranes, the arteries, &c. What are we to infer from this arrangement and the correspondent difference in the sensations? That the nervous cords themselves are differently organized? Or that the causes of these modifications of our sensations are to be sought in the organs with which the nerves communicate? The whole weight of reason and fact is given to the latter supposition. In the organs themselves the nervous substance takes on those primary and peculiar affections, which, transmitted to the sensorium, constitute the peculiar sensation. We can only infer that these results are occasioned by a disposition of the nervous substance peculiar to each tissue; or in other words, that the relations of this substance with the other organic molecules respectively differ in every different organ and tissue. Sensation, then, is modified by the organs in which the nerve is finally expanded.

As the nerves of smell, sight and hearing have special apparatuses for

* See *Journal des Progres*, tom., iij., Sixieme Annee, p. 229. *Memoire* par Bouillaud.

† It will be remembered that these are the only parts in the human system that increase by juxta-position, and not by intus-susceptio.

the performance of their functions, and as they are distributed exclusively to their respective organs, it is plain, that they cannot be the subject of our present inquiry; which must, then, of course, be confined to those nerves which arise from the posterior column of the spinal marrow, and whose sensoria is the medulla oblongata.

The disposition of the nervous substance in the different organs, and its mode of connection with the other solid organic molecules is altogether unknown. We know nothing indeed of the *ultima ratio*; why the different tissues give different sensations to the same object of impression. Observation only teaches us that such is the case.

The first of these modes of general sensation is 'tact,' the organs of which are the skin and some parts of the mucous membrane. This sense is to be considered entirely unconnected with muscular motion. It is, perhaps, of all the nerves, the one most necessary to our existence, as it warns us of danger which we may avoid before vital parts are injured.

By means of it we receive the sensations of heat and cold; or to speak correctly, heat and cold are modifications of tact. Tact makes us acquainted with the presence of external bodies, and gives us an idea of their temperature; but it scarcely does anything more.*

The next modification of general sensation, is the sense of 'taste;' the organs of which are the tongue and part of the fauces. There is a marked difference here in the objects of impression that act on this sense and those that operate on the sense of tact. Substances, to produce the sensation of taste, must be in a fluid state. If a solid body be applied to the tongue we are conscious merely of a tactual feeling, and the tongue in truth is an organ of tact, and one of the most exquisite in the body.

The sense of taste has been often called a modification of touch. This is not true; it is no more a modification of touch, than touch is of taste. They are both modes of sensation, resulting from different affections of nerves derived from the same parts of the spinal marrow; but which nerves convey different impressions, because their final distribution in the organs are different. To satisfy one's self of this, it is but necessary to recollect that the nerve of taste is a branch of the fifth pair.† Filaments going from this very nerve to the skin, and there expanded, become the nerves of tact; whereas, in the membrane of the tongue they are those of taste. It would seem that each species of animals has an organization; an arrangement of the nervous substance in the tissues, proper and suitable to its mode of existence. Thus, the ox and horse find hay, oats, &c., to possess an agreeable savor; whereas in a carnivorous animal it is quite otherwise.‡

* We refer to works on special physiology for a full detail of the modifications of general sensation.

† The sense of taste, however, is not confined to the tongue, and of course this branch of the fifth pair cannot be the only nerve of taste. It is probable that the glosso-pharyngeal takes part in this sensation. See Majendie *Precis Element.*, '33.

‡ Professor Panizza of Pavia, on the authority of experiments made by himself, and which seem to have been well-conducted and conclusive in point of proof, declares that the nerve of taste is the glosso-pharyngeal: the hypo-glossal being

The mode of sensation coming next under examination is that accompanying muscular contraction.

"It was this conviction," says Sir C. Bell, "that we are sensible of the action of the muscles, which led me to the investigation of their nerves: first, by anatomy and then by experiment. I was finally enabled to show that the muscles had two classes of nerves; that on exciting one of these, the muscle contracted; that on exciting the other no action took place. The nerve which had no power was found to be a sense of sensation: and thus it was found that there is a nervous circle 'connecting the muscles with the brain.'"*

The muscles, then, possess nerves of sensation; and that we receive sensations therefrom any person may convince himself by attending a little to his own feelings. What is that impatience of repose which we sometimes feel, but sensations arising from certain conditions of the muscles? What is fatigue, but a morbid sensation therein? Whence the pain experienced in cramp? But we have other sensations from this source, which, though obscure, are nevertheless real and important as a subject of study. The human frame, when we stand erect, is kept in that position; by what? Not by its symmetry, for the best proportioned statue requires to be fastened to its pedestal. It is supported by an action of the muscles; and if those organs should cease to contract, the body falls. What is it, then, that makes the blind aware that the muscles necessary to maintain an upright attitude are in a state of contraction? Most assuredly the knowledge is obtained from sensations derived from those muscles. If they cease to contract for one second, he is made conscious of it, and again exerts his volition. If his body incline either way so that he lose his equilibrium, he is aware of it in an instant. We perform a certain motion, (whatever it may be,) and we have accompanying it a certain sensation, which distinguishes it from all other movements. I move one finger of my hand, and I have a certain feeling. I move another, and I have a different feeling. If one should bend my arm, although I neither beheld him nor the member, I would have a consciousness of its position. The same thing would happen if irritation in the nerves or spinal marrow caused the muscles to contract: I would have a consciousness of the movement performed, though I neither saw it, nor exerted my volition to produce it.

the motor nerve exclusively, and lingual the nerve of tact and general sensibility enjoyed by the tongue. (See Amer. Journal of Medical Science, No xxxv.)

The Professor is somewhat supported by Majendie, who says that when the fifth pair are divided, sapid substances have no effect if applied to the tip of the tongue, but are evidently tasted if applied at the root. On the other hand these are adverse to the experiments of Herbert Mayo who asserts that the glosso-pharyngeal causes muscular contraction in the tongue, when that nerve is pinched.

† Again, when we take a body in our hand, whence is it that we receive the data to make a judgment concerning its weight? Assuredly from the degree of muscular contraction required to sustain it. That a sensation accompanies the action of the muscles, the phrase 'it is light' or 'it is heavy' is sufficient proof. The sensation of weight in truth is derived from the muscles, and from them only.

The consciousness, therefore, of the condition of our muscular system does not depend on a remembrance of the volition exerted, but on sensations derived from the muscles themselves. We wake in the morning, with a consciousness of our position in bed, which could not happen had we to remember what exertion of our volition placed them as we find them. Sir C. Bell relates the following case, which proves conclusively the existence, and at the same time, the necessity of muscular sensation. "A mother, while nursing her infant, was seized with a paralysis, attended by the loss of power on one side of her body and the loss of sensibility on the other side. The surprising, and indeed, the alarming circumstance here was, that she could hold her child to her bosom with the arm that possessed muscular power, but only as she looked at the infant. If surrounding objects withdrew her attention from the state of her arm, the flexor muscles gradually relaxed, and the child was in danger of falling."* We see, in this case, how necessary it is that certain sensations should accompany muscular action. While looking at the child, the mother was aware how important it was to exercise her volition. But when her eyes were withdrawn, as there was no sensation sent from the muscles to keep up the knowledge that the child rested on her arms, the previous volition was forgotten, and the child's life put in peril.

A study of this subject is highly important to the psychologist; for it is by means of this sense that we obtain most of our knowledge of an external world. Those properties of matter termed essential, (as extension and resistance,) are made known to us by this sense—the latter, indeed, is derived exclusively from it.†

The sensations derived from muscular action are necessarily associated with those derived from the sense of tact, and this association forms what is called the sense of 'touch.' Upon an education of this sense depends all mechanical dexterity; and it is the same that gives such wonderful nicety of perception to the blind.

The hand is the chief organ of touch; and for this reason, it possesses, in proportion, more skin than any other part of the body, and is more sensitive to tactual impressions than any other organ except the tongue. The hand is split up, as it were, into parts, and the skin going round these parts (the fingers) is greatly increased in quantity. Besides this, it is the organ, of all others, in which motion is performed with the greatest ease, and in the greatest possible number of directions; the thumb is opposed to the fingers; the fingers are movable on three joints of their own, the first of which permits lateral motion to some extent, and they are all supplied with many muscles. They are of different lengths, and are thereby adapted toprehend and to give a variety of sensations. The metacarpal bones are attached to the wrist in a manner rather to secure strength than freedom of motion, yet

* On the Hand, p 154.

† For further information on this subject, consult Brown, vol. i, Lectures on the sense of touch.—Sir C. Bell, Anatomy, vol i, on the muscular power.—His work 'on the Hand,' chap. ix.—Paper read to the Royal Society, 1826, "On the Nervous Circle."

allowing them to approach forward and recede again, so as to form a plane when the hand is prone. The wrist, joined to the radius, is capable of moving backwards and forwards and to each side. By means of the radius the hand can be made prone or supine; by means of the ulna, it can be thrown forwards from a straight position towards the humerus; and by means of the humerus, as joined to the scapula, it can move like a double pivot to every point of a sphere except one, and that is in the direction immediately upwards. The cause of this hindrance is the acromion process;—but even here we find a remedy provided; for the scapula, of which this process is a part, is itself movable, so that by a downward movement of its base, the whole arm can be extended aloft. The clavicles also assist in the motions of the arm, by steadying, like a cross beam, the other parts of the apparatus, and resisting a motion of the scapula forwards. When, in addition to these considerations, we reflect that we are supplied with two of such apparatuses, so that they can readily be brought in contact and opposed to each other, the reasons why the hand is the chief instrument of touch become plain at once; and it is impossible not to admire the exquisite mechanism and adaptation of parts, one to another.

Another modification of general sensation is the venereal pleasure. The mucous membrane of the urethra is, perhaps, the organ where in man the final expansion of the nerve affected takes place. A peculiar object of impression (the semen) is required to produce this sensation. The organ affected in woman is not well known; it is generally supposed to be the clitoris.

Internal Sensations.—It will be remembered that at the commencement of the present chapter, sensations were divided into *external* and *internal*. The internal sensations are all modifications of general sensation, varying in kind according to the organs affected, and the other general circumstances before mentioned.

Had nature formed man, or any animal of the higher class, in such a way, that all affections of the internal organs were out of the sphere of his perceptions, or, in other words, were the brain and its appendages separate and unconnected with organic life, the play of vital phenomena would end almost as soon as begun. To keep up the functional actions of the organs, assistance from the organs of volition is absolutely requisite; and that the performance of this duty should not be neglected, these internal parts are endowed with nerves which transmit to the sensorium sensations so painful, as not only to warn, but imperiously enforce the performance of the actions required. Thus, it is necessary for the existence of life, that respiration be constant; and consequently the lungs have nerves which, if the function be arrested, transmit to the sensorium sensations so distressing that all efforts on our part, even with the intention of committing suicide, would avail nothing. We must inspire and expire;—we breathe per force.

The sensations of hunger and thirst are also examples of internal sensations; and how very necessary they are to the preservation of health, and consequently of life, is made evident when the pneumogastric nerves are divided. Animals, in this condition, seem neither to

feel hunger nor satiety; they either refuse to eat or take their food with indifference, and as it were from habit; continuing to do so even after the stomach is full.*

Tenesmus and the feelings arising from a full bladder are also examples of internal sensations, calling for the performance of actions on the part of the organs of animal life; so, too, is the necessity of spitting, coughing, sighing, and, in some instances, sneezing. The sensation immediately preceding parturition is another example. Lassitude and impatience of repose, as they arise from internal causes, may also be referred to the same head.

It is important not to confound with these internal sensations, the passions and emotions. A sensation is usually an affection of the sentient organ, *consequent* to a prior affection of a nerve;—and even when the affection arises from some condition of that organ itself, (as in dreams,) still the sensations excited have a location somewhere or other in our system. But an emotion is an affection of the nervous substance, consequent to sensation, to the memory, or the imagination. It must be plain that our visual perceptions of a statue, and the emotions of beauty excited by it, are distinct and distinguishable feelings—the latter is subsequent to the former, and may or may not exist as a consequence; so, likewise, are those feelings which induce us to exercise the senses and the intellect, those which suggest to us the want of something to love, as a mistress, a friend, country, etc., distinct from sensation and should not be confounded with it. It is true, indeed, that certain conditions of the nervous substance in the different organs may give a predisposition to peculiar emotions; as for instance, chronic inflammation of the mucous membrane of the stomach may render the sufferer irascible; or, to take a more familiar example, a certain condition of the venereal organs may render us more liable to feel the influence of objects that are calculated to excite the passion of animal love; but in these cases we only have a certain state of the nervous system fitted to undergo those affections which constitute the emotion; which state an internal sensation may accompany or not, as the case may be. These internal sensations, it is sometimes said, are the *causes* of the emotions experienced. We have already given our reasons for considering them as mere manifestations or accompaniments of a change in the condition of the nervous matter, and of which the subsequent emotions are sometimes equally the accompaniment, and sometimes (when other causes accede to produce the explosion,) † the effect.

The vague and loose application of the words 'feeling' and 'desire' seems to be the principal cause of confusion in this part of philosophy. There is no affection of the mind to which the former cannot be applied. We speak of feeling the truth of a proposition as familiarly as we do of feeling an external object with our hands. The word 'desire,' too, is used in reference to an appetite, (an internal sensation,) and to a large

* Brachet,—*Système Nerveux*, p 186.

† A cause is always a precedent, but the precedent in the present case is not the internal sensation, but the change undergone by the nervous substance, the sensation being the mere manifestation of that change.

class of the emotions. Hunger is said to be a desire for food ; ambition, a desire for power, etc., etc. But to any one capable of attending to the subjects of his own consciousness, they are evidently affections differing essentially in kind.

In many of the internal sensations, we know neither the tissue affected, nor the particular object of impression. This is especially the case in many of the morbid sensations. The object of impression, however, determines, here as elsewhere, the nature of the particular sensation. Aliment, taken in large quantity, converts the sensation of hunger into that of satiety, though the same nerves must be affected in both.

Morbid Sensations.—Substances coming in contact with our bodies produce within us certain feelings that are agreeable or different. Beyond these limits they cause pain—an ultimate fact in physiology, and of which no explication can be given.

As sensation is the manifestation of a change in the condition of the nervous substance, and as these changes may vary according to the object of impression, the organ affected, the previous state of the nervous system, to idiosyncrasy, etc., almost ad infinitum, it must be obvious that an enumeration of them, either normal or abnormal, is a thing impossible.*

But in what does a morbid sensation differ from those of health ? Not in being painful ; for many morbid sensations are agreeable, e. g., those occurring from the employment of opium. In truth, we can make but arbitrary lines of limitation, when, like the colors of the rainbow, the subjects of our investigation blend and coalesce with each other.

Morbid sensations usually accompany lesions of innervation, but not always ; for those lesions may be seated in organs supplied by the sympathetic nerve, which does not readily transmit its affections to the sensorium ; or the nervous connection with the sensorium may be interrupted, as in palsy. On the other hand, we sometimes have cases of acute pain, without perceptible lesions of innervation.

Pains have many epithets applied to them, chiefly drawn from the causes that are calculated to produce them, as distending, lancinating, piercing, burning, etc. ; but there are many morbid sensations which the word pain is not employed to designate, as offensive odors occurring in disease from objects that usually give pleasure, nausea, morbid taste, etc., etc.

* The following extract may not be uninteresting—"Dr. Falconer mentions a gentleman who had such a morbid state of sensation, that cold bodies felt to him as if they were extremely hot. A gentleman mentioned by Dr. Conolly, when recovering from measles, saw objects diminished to the smallest imaginable size ; and a patient mentioned by Baron Larrey, on recovering from amaurosis, saw men as giants, and all objects magnified in the most remarkable manner. It is not mentioned how long these peculiarities continued. This last peculiarity of perception occurred also to a particular friend of mine, in recovering from typhus fever. His own body appeared to him to be about ten feet high ; his bed seemed to be seven or eight feet from the floor, so that he felt the greatest dread in attempting to get out of it, and the opening of the chimney of his apartment appeared as large as the arch of a bridge. A singular peculiarity of this case, however, was, that the persons about him, with whom he was familiar, did not appear above their natural size."—Abercrombie on the Intellectual Powers, p: 62.

Sensation in the Inferior Animals.—"The torpedo, the gymnotus, and several other fishes, are furnished with an electrical apparatus, resembling the Voltaic battery, which they have the power of charging and discharging at pleasure. An immense profusion of nerves is distributed upon this organ, and we can hardly doubt that they communicate perceptions, with regard to electricity, very different from any that we can feel. In general, indeed, it may be remarked, that the more an organ of sense differs in its structure from those which we ourselves possess, the more uncertain must be our knowledge of its functions. We may, without any great stretch of fancy, conceive ourselves placed in the situation of the beasts of the forest, and comprehend what are the feelings and motives which animate the quadruped and the bird. But how can we transport ourselves, even in imagination, into the dark recesses of the ocean, which we know are tenanted by multitudinous tribes of fishes, zoophytes, and mollusca? How can we figure to ourselves the sensitive existence of the worm or the insect, organized in so different a manner to ourselves, and occupying so remote a region in the expanse of creation? How can we venture to speculate on the perceptions of the animalcule, whose world is a drop of fluid, and whose fleeting existence, chequered, perhaps, by various transformations, is destined to run its course in a few hours?"*

As soon as we leave our own persons, the difficulty of appreciating the nature of sensation commences. We know that in ourselves, sensation differs at different times; we know that it is modified by mental emotions; by the particular condition in which the system may happen to be; by health and disease; in fine, by an infinite multitude of circumstances. When, therefore, we go out of the sphere of our own experience, it is absolutely impossible to form a notion concerning the sensations of others. Who can imagine the sensations of a hypochondriac, obstinately persisting in the conviction that his body is a clock or watering-pot, or that he is made of glass?

Descending in the scale of animal life, we shall find that just as the type of organization is further removed from our own, so does this difficulty grow greater and greater; for the nature of sensation does not depend solely on the external objects of impression, (which may be supposed to remain the same in all cases and at all times,) but also on the peculiar condition and constitution of the nervous substance, and especially on that portion of it which is diffused in the various organs. The new-born bee, impelled by irresistible feelings, leaves the bee hive on the instant in those pursuits which nature has marked out for her; but who can imagine those feelings? Who shall define the precise nature of those internal sensations which result from the actions of her organism?

When we see an animal in possession of an eye, or ear, we must infer that these optic and acoustic instruments serve the same purpose which they do in ourselves; i. e., that they concentrate the rays of light and the ærial vibrations on the nervous expansions. But who shall pro-

* Roget, Bridgewater Treatise, vol. ii, p. 402, Am. Ed. The whole passage is highly interesting.

nounce on the peculiar nature of the affection induced? It is obvious, that not only the sphere and limits of these senses may be far greater, but absolutely different in kind from any thing we can conceive. Indeed, we have seen that in the human species itself, there are individuals who have no perception whatever of this or that color; others, who, though in ordinary cases they hear perfectly well, and even derive exquisite enjoyment from music, are yet unable to hear at all when the notes are very acute, but which are distinctly audible to all around them.*

It follows, then, that we can learn nothing of the sensations of others, except so far as they agree with something we ourselves have experienced. Narratives of personal suffering may recall to our remembrance what we ourselves have undergone; but beyond this all is vague and inconceivable; and they only further inform us that the victim has endured extraordinary pain.

* * * * *

We should here conclude the subject of sensation, but truth in physiology is so interwoven with error, that it is necessary not only to disentangle the web and to separate the true from the false; it is also required that we pay some little attention to the refuse.

On the word Sense.—We have given reasons why the olfactory, the optic and the acoustic nerves should be considered as specially organized; each possessing a peculiar structure and chemical constitution. We likewise pointed out many distinct kinds of sensation, which, however, appear to differ one from another, solely because the nerves were finally expanded in different organs. We remarked that all these nerves come from the posterior column of the spinal marrow, and that there was no reason to believe that one diffused from another in structure or chemical constitution, but that the whole difference in the many sensations experienced was caused by some peculiar distribution in the tissue which they supplied. From the same nervous bundle we see one filament go to a muscle, another to a bone, a third to the skin, &c.; yet the sensations derived from these different tissues were all unlike one another. A question then arises: How and to what shall we limit the word ‘sense’? In common parlance, we are said to have five senses: smell, sight, hearing, taste, and touch. This division, though useful in the affairs of life, is obviously deficient in a philosophical point of view. Hence the interminable disputes about a sixth sense. Some have declared for the venereal sensation; others, for hunger and thirst; others, again, for fatigue; others, for the muscular sense; and so on. Others, again, have strenuously denied the existence of any sixth sense, and have maintained that all our different sensations were but modifications of the sense of ‘tact.’ Now, the skin is the organ of tact, but assuredly neither hunger, nor thirst, nor fatigue, nor the venereal pleasure was ever experienced therein. The truth is, there is not perhaps an organ in the body, if it be supplied with nerves, that does not give sensations *sui generis*; sensations which essentially differ from those derived from any

organ. Some physiologists have wished to throw 'taste' out in the enumeration of the senses; and have called it a modification of 'tact.' But speaking properly, 'taste' can no more be called a modification of tact, than tact is of taste, or of the venereal sense. They are all equally modifications of sensations in those similarly organized nerves which come from the posterior column of the spinal marrow, and the cause of which modification is their distribution in separate and differently organized tissues.

On the employment by some physiologists of the word 'Sensibility.' "There is," says Sir Charles Bell, "in the several organs of the body, as it were, a distinct life; that is, they possess sensibility, the grand endowment of life, necessary to their condition and adapted to their appropriate stimulus. The impressions made upon them will sometimes rouse them into activity, or call muscles into action which are necessary to their functions or for their protection; and this oftentimes without reference to the mind at all, and consequently without our consciousness."*

As we have impressions here, made upon organs possessing *sensibility*, one would suppose that the result, of course, would be a *sensation*; yet we are told that the mind is unconscious of any such thing. This is a paradox in terms; but for the proof of it:

The author gives, among many others, the following: "We have the best proof of what we wish to inculcate in the action of the ruminating stomach. A cow swallows the gross herbage, and fills its large first stomach. When it chews the cud, the stomach, by its actions, rolls up the grass into distinct pellets, or balls, with as much regard to the office of its being rejected into the mouth, as we do in masticating for swallowing. When the ball is brought into the mouth and chewed, it is again swallowed; but in descending into the lower part of the gullet a muscle draws close the aperture by which it passed into the large stomach in the first instance, and it is now ushered into a second stomach, and so successively onwards to that stomach in which the digestion is performed. The curious muscular apparatus by which this is accomplished need not be described; but surely the sensibility which directs it, which, kept apart altogether from the will, is yet, in its results, so like the operations of reason, presents a subject of just admiration."†

To the admiration expressed for this play of organic actions we have nothing to object; but the question at issue is, whether the phenomena depend on a property of the parts put in motion, which property is to be called 'sensibility'?

To say that the movement of the muscles depends on a property of moving, is to speak unmeaningly. It is making an abstraction out of multiplex phenomena. This subject, however, we have considered already.

When treating of motion in the involuntary muscles, we remarked, that to produce such an effect, three things were requisite; as substance,

* "Animal Mechanics." p. 51. *Ibid, p. 54,

(external to the muscle and termed a 'stimulus,') a nerve and a muscle. We observed, moreover, that of these stimuli, some were termed natural and others artificial; the first, fitted by nature for the organs, producing regular and harmonious movements; the others, causing irregular and spasmodic contractions. Now, in the illustration offered by Sir C. Bell, there is nothing more than the regular sequence of cause or effect, resulting from the contact of these natural stimuli. The gross herbage comes in contract with the nervous substance, produces a change therein, the muscles contract in consequence of that change, and the requisite motion is performed. The ball after being chewed a second time is not the same gross herbage swallowed at first; it has undergone a change both in the first stomach and in the subsequent mastication. When, therefore, it is swallowed for the last time, it is fitted to affect nerves and muscles, which in its original state it could not affect. It is the natural stimulus of the parts on which it acts, just as blood is the natural stimulus of the heart, or chyme of the human stomach. To say, then, that these effects are owing to sensibility is a misuse of language; if, indeed, it be not something worse—the inculcation of a gratuitous hypothesis.

Let us now turn to a greater name.

"Nature," says Bichat, "has endowed every portion of a vegetable with a faculty of feeling the impressions of fluids with which their fibres are in contact. * * * * This faculty I call 'organized sensibility.'"*

Throughout the whole of his writings, he attributes the phenomena of nutrition, secretion and absorption to this property of organic sensibility. According to him, when certain particles contained in the blood come into a tissue, the tissue, by means of this property, feels their presence, and by means of another property, (which we have already reviewed,) his insensible organic contractility, they are changed in their chemical constitution and become a part of said tissue. Thus atoms of calcium, oxygen and phosphorus mixed up with the other elements of the blood arrive in the tissue of a bone; but this tissue has only a sensibility for those principles of the nutritive fluid of which itself is composed, and contracting insensibly (i. e., imperceptibly) upon them, it converts them into its own substance.

We have already gone over the subjects of nutrition, secretion and absorption. We have shown that in the nature of things there was really no solid objection which prevented us considering the whole of these phenomena as the manifestations of a play of chemical affinities. The precise detail of these changes which go to make up the gross phenomena, we are ignorant of; but when we reflect on the nature of chemical actions, of which nothing is known *a priori*, but all is gathered from observation, it is impossible for us not to believe that the immediate causes of chemical changes are chemical affinities, and these only.

But were it otherwise; were chemical and vital actions utterly irre-

concilable in the nature of things, it would be an improper use of language, to say that the latter were owing to 'sensibility.' The word is expressive of that susceptibility of the nervous substance, to undergo a change in its condition; concomitant with which is sensation; and to apply it in a sense altogether foreign to this, is assuredly an abuse of language, tending to stay the progress of science.

But this is not so. We have seen that vital actions are chemical actions, modified by the circumstances in which they are manifested. The introduction of any other principle is altogether gratuitous, hypothetical and unnecessary. To say, then, that the phenomena of nutrition, &c., depend on a property of sensibility peculiar to each tissue has the same plausibility and force of reason on its side, as would belong to the chemist, who should assert that the union of an acid and an alkali was owing to the same cause; or who should explain the phenomena of magnetical attraction, by saying that the magnet *felt* the presence of the iron, or that the iron *felt* the magnet. With just as much truth might one assert that it was due to a property of sensibility residing in the cork, that informs said cork it is surrounded by the sides of a basin; and with just as much force of argument might it be contended; that to the 'insensible organic contractility' of the cork, was owing its approach to the sides.

Matter approaches matter; matter combines with matter in chemical union, the physical causes of which phenomena, we see and know, their co-existence within certain limits of each other; but beyond these ultimate facts we know nothing and cannot advance.*

II.—AN ENQUIRY into the Nature and Existence of Typhoid Fever in the South. By JAMES C. HARRIS, M. D., of Wetumpka, Alabama.

Within the last few years, both in the medical works and the different medical periodicals of the country, there has been so much said on the subject of typhoid fever, that a correct understanding of the subject to all Southern physicians has become a matter of no small importance. If such a type of fever as a distinct variety has really an existence, and is generally, or occasionally, endemic in the southern portions of the United States, it is, we think, time that the profession should be informed of the fact, and of the ground on which its advocates rest its claims for such distinction. Entertaining feelings of this

* See Note F.

character, we enter at once on the investigation of the subject wishing to be distinctly understood as declaring that we do so with no intention whatever of injuring the standing, or impugning the motives of others; being alone actuated by a sense of duty to the profession; for the harmony, elevation, and dignity of which, we have been ever ready to contribute our mite.

Waiving, therefore, for the present, any other objections that we may have (and their name is legion) to the phrases *typhus* and *typhoid* being employed to designate a variety of fever, occurring during the fall season in country localities, still, we have been accustomed, from our earliest recollection in medical matters, of hearing medical gentlemen in conversation using the former of these terms, and by which we understood them as clearly referring to a species of *continued fever*, under certain circumstances, of a contagious character, and accompanied, for the most part, with the other ordinary symptoms of fever, and distinguishable from them by much more real debility—a small, quick, or fluttering pulse—red eyes—low delirium, or an unusual amount of stupor—having the tongue covered with a black or brown tenacious fur, with a collection of sordes around the teeth, attended with sudamina, or eruptions of livid spots, or petechia, on various portions of the body; and, in the latter stages, with hemorrhages from the gums, nostrils, mouth, and other parts of the body; the urine depositing a black and fœtid sediment, with frequently involuntary discharges from the bowels, of a dark, liquid, offensive character, and terminating in death or convalescence, without any very evident crisis, in from eight to forty days, and showing, on dissection, inflammation of the brain and viscera, more particularly of the stomach and intestines; the latter of which, besides being sometimes found in a gangrenous state, not unfrequently presenting the peculiar anatomical lesion contended for as *diagnostic of typhoid fever*. Hence we were somewhat prepared to hear of late of the *typhoid type of fever, of pneumonia typhoides, etc.*; but never, until recently, entertained a serious thought that there was even one experienced physician who would contend, in earnestness, that a grade of fever, appearing either sporadically or epidemically, during the fall season, in any portion of the interior of the United States, South, was, from the commencement and throughout, *typhus*, or the typhoid affection of authors. But, nevertheless, we have lived at least to see some of these things: but more on this subject anon.

Regardless, therefore, then, of the objections that may be urged against the general application of the term congestive to the different varieties of malarial fevers, those most familiar with the history of their symptoms will, we apprehend, readily admit that there is scarcely any grade, no matter however light; but that, either at its commencement or sometimes during its progress, gives unmistakeable signs of a greater or less determination of blood at one time, to some particular organ or tissues than another, and that this broken balance of the circulation, continuing, or recurring at regular or irregular intervals, is known, by those who have studied the phenomena of *congestion*, to produce or be accompanied with either increased or decreased nervous action, at-

tended in the part to which the accumulation takes place, with swelling, pain, discoloration and heat; and that coincident with these, the essential elements of inflammation, we have also increased, diminished, altered or suspended secretion, attended with softening of the mucous membrane, effusion and ulceration; and that these within themselves are sufficient, and in our opinion do clearly indicate their nature and the name by which they should be known. To show that we are not singular in this opinion, and that others have been in the habit of making similar admissions, and accounting in the same way for some of the symptoms and post mortem appearances particularly in remittent fever, it will be only necessary to direct the attention of our reader to the recorded views of Mr. Twinings who observes, (Diseases from Bengal, cap. v.,) "that from the closest attention to clinical observations, as well as the result of post mortem examination, convince me (him) that remittent fevers in Bengal are *invariably* connected with *local congestion*, which often runs rapidly into inflammations, attended with much interstitial effusion. The seat of these local affections was found principally in the stomach, intestines, cellular structure about the duodenum, and at the root of the *mesocolon*, more especially where it passes across the spine; the principal disease being also often found in the spleen, liver, brain or lungs." Thus most clearly showing, both from post mortem facts, and clinical observations, that whilst the mucous membrane of the intestinal tube in the remittent fever of Bengal is frequently the seat of inflammation and effusion, all the other organs of the body may in time take on a similar condition, and become foci of diseased action. Hence, we would say, arises the impropriety from the occasional appearance of one post mortem lesion, ulceration, for instance, of the glands of Pyer, of taking from a series of symptoms indicating and bearing the name of a clearly defined and well understood form of malarial fever, and hypotheçating thereon a name, the very mention of which is calculated to mislead the practitioner, so far as treatment is concerned, into the most dangerous, not to say fatal errors, imaginable.

Dr. S. H. Dickson, at that time a teacher and practitioner of medicine in the city of Charleston, South Carolina, observes, in his practice of Medicine, pages 289-90, that "it is not uncommon, especially among the most perfectly acclimated adult natives resident in malarious localities, and strangers long familiarized to our atmosphere, to find *bilious remittent fever* lengthening itself out to a tedious protraction, the patient sinking after the tenth or twelfth day into a low stage of fever *resembling the less severe grades of typhus*, and hence obtaining among us the designation of the typhoid stage of bilious fever. Here the well marked lines which separate the period of exacerbation and remission are almost effaced; the characteristic *periodicity* almost obliterated, the fever degenerates nearly into the continued type, and the patient, in the language of the older practitioners, wades through the attack with no definitively regular changes observable from time to time, until, by the success or failure of our efforts in his behalf, he recovers or is lost. The pulse is small and corded, the tongue throws off its fur, and is smooth, red and dry, or smeared over, like the teeth and

lips, with foul sordes. The stomach loses its irritability, and the vomiting ceases; the stools are dark or even black; *meteorism* occasionally shows itself; there is muttering delirium, or disposition to heavy stupor or coma; the countenance is dull and inexpressive; muscular languor, or great debility ensue, with nervous tremors on motion, and perpetual subsultus tendinum." Dr. Dickson has known cases protracted, in three instances, to thirty, thirty-five and fifty days, though the average, he observes, would scarcely reach beyond fifteen or twenty. Now, to understand fully, and appreciate clearly the meaning of the foregoing quotation, it will be necessary to recollect that Dr. Dickson was detailing the symptoms and describing a form of malarial fever, (which he says resembled typhus,) as one of the varieties of the bilious remittent fever of the South; and surely he could not have been, neither are we willing to admit that so elegant a writer and accomplished physician was ignorant of the position he was occupying, having doubtless frequently met with at least one variety of typhus fever in Charleston, in the persons of emigrants lately arrived from the different countries and cities of continental Europe, and notwithstanding there are symptoms, (by those who are monomaniacs on the subject,) that may be seized on and made to appear as constituting a tolerable good picture of typhoid fever, still we venture the assertion that there is nothing in them but what will be recognized, by a large majority of my southern medical brethren, as belonging to, and constituting essentially, a well known form or variety of remittent fever.

Again, in describing one of the forms of remittent fever, (Essay on Periodical or Malarial fever,*) "Ever since our first settlement in this country, (Ala.) during the fall season in certain localities, the uplands and off the rivers and creeks, we have occasionally met with cases at first of a slightly remittent type, that have gradually assumed a continued and low grade of febrile action. These kind of cases are generally characterized at first by great debility and entire loss of appetite, headache, pains in the back and limbs, thirst, heat of skin, and quick pulse, attended with dullness and confusion of intellect, gradually passing into restlessness and delirium, twitching of the tendons, and occasional epistaxis; after the persistence of these symptoms for an indefinite period, slight sordes collect around the teeth, accompanied with a dry, red, cracked or brown tongue, sometimes tremulous on protrusion, attended throughout with more or less looseness of the bowels, the stools being watery and of a dark, black, yellowish, or bloody appearance, and terminating, from eight to fifteen or twenty days, in low muttering delirium; subsultus tendinum; picking at the bed clothes; suppression of urine, or involuntary evacuations from the bladder or bowels; coldness of the extremities, hiccup and death. The foregoing symptoms varying somewhat in different individuals, and under different circumstances, appearing in persons mostly over four and under forty years of age, and regularly increasing in severity and terminating in death within the period above specified, or gradually diminishing in

severity and ending in convalescence within the same period. We had always been in the habit, until the recent work of Dr. Bartlett, on the fevers of the United States, was placed in our hands, of regarding as only one of the various phases that was frequently assumed by the common bilious remittent fever of the country; however this may be after a careful study of this most excellent work, particularly on *typhoid fever*. If it be true that an assemblage of symptoms, such as we have described, and occurring in a disease undoubtedly *not contagious*, with an entire absence of the rose colored spots, the sudamina and the tympanitic condition of the abdomen can be safely pronounced typhoid fever, and that too in the absence of any positive information furnished from post-mortem examinations of the existence of the essential and peculiar anatomical lesion known to exist in the glands of Brunner, and the elliptical plates of the ilium. We are ready to doubt, to some extent, the correctness of our diagnosis, and admit that we have been, for many years, treating typhoid fever without a knowledge of the fact. Shortly after the publication of this brief and exceedingly imperfect description of this variety of remittent fever, we were made to understand, both in conversation, and through letters received from several of our medical friends, that they were under the impression that we had met and described nothing more nor less than the genuine *typhoid fever*. To convince them, however, of the incorrectness of this opinion, we hope nothing more will be necessary than a careful examination of the symptoms as detailed, when it will be readily perceived, that with probably the exception that it is distinctly represented as being characterized, at the commencement, with considerable debility, (no matter, we suppose, whether real or apparent) and slight remissions, attended with, perhaps, rather more looseness of the bowels, and occasional epistaxis; that it is, in every other particular, essentially the same disease, as the one we have already alluded to as described by Dr. Dickson. Then for the reasons that were to sustain us in safely *pronouncing* what we had seen and described typhoid fever, when Dr. Dickson, with his extensive experience, had refused to do so, even with *meteorism*, and, as will be, presently shown, perhaps ulceration of the elliptical plates and glands of pyer present, we will leave for others; still contending and believing that when we occasionally meet with, during the fall season in malarious localities, cases of this character, no matter however slight the remissions, or great the debility, or completely, speedily or tardily these may be established or obliterated. We are not justified in viewing them in any other light than a mere variety of our common, wide spread, and, we regret to say, too frequently fatal remittent *fever*, and that a practice based on any other pathological view will end frequently in the loss of the patient, to the utter dismay of the friends and great discomfiture of the attending physician. So clearly impressed with the *remissional* tendency of all malarial fevers are the great majority of the medical men of the city of New Orleans, that not a few of the most distinguished and experienced of them, for the purpose of destroying periodicity and producing a solution of the fever symptoms, actually advise and practice for this pur-

pose, at the greatest remission, large doses of the sulph of quinine, and that, too, we are informed, with no just reason of complaint at the result. Certain we are, from all the lights before us, that, as yet, cures of autumnal fever in the Southern States, of the continued type, not characterized by very distinct exacerbations and remissions, are of rather rare occurrence. What changes in the shape of modified types we are yet to be favored with, especially in relation to the development of typhoid fever, from a more complete and extended cultivation of the country, and higher state of civilization and refinement, we are only permitted to know, by adopting the rule of judging the future by the past, and which, so far as the fevers of Alabama are concerned, have evidently been from the more malignant to the milder remittent and intermittent types.

To sum up and conclude, then, all that we have to say at present on this part of our subject, we again repeat that we still remain clearly of the opinion, that an assemblage of symptoms such as we have detailed, and occurring under the circumstances, and in a disease undoubtedly not contagious, cannot be safely pronounced typhoid fever; neither can they, as we shall presently attempt to show, although accompanied with one or more of the other symptoms relied on by some to make up and constitute a clear and distinct case of the *gastro-enterite* or typhoid fever. But, before proceeding to do so, we propose to notice briefly the published accounts of several medical gentlemen in relation to the prevalence of this particular form of fever in Alabama. The first of these accounts, that we shall call the attention of our readers to, may be found in a report read by Dr. J. A. English before our State Medical Association, in March, 1849, on the diseases of Cahawba and its vicinity, and in which he observes,* "that since the clearing up, draining, and putting into cultivation the surrounding country, that it has become a subject of remark by the citizens of the place, that the town has become much more healthy, particularly as regards endemic fevers; in truth, in the last four or five years, the former dreaded scourge, bilious remittent fever, has almost disappeared, and the few cases that we do have are of a mild type. But a disease, although more slow and insidious in its approach, yet more formidable in its nature, seems to have supplanted it. I mean typhoid fever. * * * * When I first spoke of this disease as prevailing among us, my opinion had but little weight with medical men; some contending that they were obstinate cases of bilious fever, which had not been treated with sufficiently active remedies in the outset of the disease, and as a consequence, had assumed a typhoid character." We are then informed that the first patient treated in the disease was found in a general and warm perspiration; pulse about 90 \circ ; tongue clean; little or no tenderness over the abdomen, and complaining of nothing, but that she felt very weak. On returning the next day she was found still in the same condition, having had no *intermission* of fever since the visit the day before. This state of things continued pretty much the same until about the eighth day of sickness, when delirium supervened, and

* New Orleans Med. and Surg. Jour., 1849, page 168.

in spite of treatment the patient continued to grow worse until the fifteenth day, when death closed the scene. Now, in so important a matter as the one under consideration, the history, in this region of the country, of rather a new disease, it is to be greatly regretted that Dr. English failed to give a more detailed history of the symptoms, and those, particularly, by which he was enabled to diagnosticate it from other forms of malarial fever; as upon something of this sort, it occurs to our mind, must rest, to at least some extent, the weight of the testimony.

The post mortem examination, as far as carried, (and which was the only one the Dr. had an opportunity of making,) showed, in this case, the mucous membrane of the stomach, particularly about the large curvature, much inflamed, numerous large dark patches studding the arch of the colon; but the most marked lesion was found in the small intestines, the jejunum and ilium both bearing traces of inflammatory action throughout their whole extent, with occasional patches of ulceration about the upper portions of the ilium, and which extended to the peritoneal coat, this coat being easily broken down over the seat of these ulcerations.

From the symptoms given as present in the cases that occurred at the plantation of Mr. C., we are compelled to confess our inability to come to any satisfactory conclusion in relation to the particular type of the disease, but are rather disposed to suspect that it was a variety of typhus fever, the result probably of bad clothing, improper diet, and the want of proper ventilation; ten or twelve negroes, as we are informed, sleeping together in a cabin having but one door and no window.

In another report, read, on the same occasion, by Dr. F. A. Bates, on the prevailing diseases (of a portion) of Dallas county, under the head of typhoid fever, we are presented with the following picture of that disease: * "The next three cases were still more violent than the preceding one, (which was clearly a well marked case of bilious remittent fever,)" two of them had premonitory symptoms of fever for nearly a week, but were not detained from their daily duties. On the first day of their confinement the attack was ushered in with a chill of no great severity, followed by considerable fever, which was distinguished by a *slight remission*, followed, in twelve hours, by a second *exacerbation*, which prostrated the energies of the system entirely. In these two cases, from the moment the exacerbation was the highest, there was a gradual decline of the powers of life, until complete prostration ensued, and death followed in a few hours! In illustration of the probable nature and type of the above cases, we will here only repeat what we have already said on another occasion, "that along the rich alluvial bottoms of the creeks and rivers, *bilious remittents* sometimes assume the type of the *pernicious intermittent*. This they most frequently do at the termination of the second or third paroxysm, or in the midst of high febrile excitement. * * * * These kinds of cases most frequently termi-

* New Orleans Med. and Surg. Jour., Sept., 1849, p. 183.

nate, in the course of a few hours, in death. The sanguineous accumulations and serous effusions taking place into the lungs, the brain, the liver, the stomach and bowels; and each being marked by the peculiar symptoms characterizing congestion of these organs, and constituting, in every instance, dangerous if not fatal complications and determinations.

The next and only account of typhoid fever, that we shall have space on the present occasion to notice, may be found in quite an interesting paper by Dr. C. J. Clark, of Jacksonville, Alabama.* Aware of this gentleman's entire competency to give a correct and reliable history of this fever, as it prevails and is known in the up country regions of our State, induced us, some time ago, to address him a letter of inquiry on this subject; the result of which is contained in the communication above alluded to, and in which, we candidly believe, will be found the most critically correct account of a certain form of malarial remittent fever, as it appears in the up country regions of the Southern States generally, any where on record; but for fear that we may be considered by others, who may read the Dr.'s article, as entertaining rather singular opinions in relation to its merits in this particular, we will let him speak for himself, and which he does by informing us, page 46, that "since 1840, not a year has passed without a greater or less number of cases, occurring usually late in the fall, during the winter, or early in the spring. In the autumnal months, the disease is frequently marked by the influence, whatever it may be, that gives periodicity to our intermittents, remittents, and neuralgias; or the intermittents and remittents take on the *typhoid type*." Now, what the Dr. really wishes us to understand him, as meaning by this taking on of the *typhoid type*, we do not exactly know. If it be an entire loss of the remissional features of the disease, then we would say that he would find himself much more certainly introduced to another and well defined form of malarial fever, than his *old acquaintance*, the gastro-enterite. But to proceed: "At this season of the year, the shading from one form of fever into the other is so gentle, that in some cases the diagnosis is difficult." This we do not doubt. "As the disease occurs in the winter months, and it is not uncommon, it is totally different from, and cannot, by possibility, be mistaken for our periodical fevers—there could be no difficulty in distinguishing it from any thing but true typhus. It has varied in different years, and in different seasons of the same year, in many of its minor features, but in the whole has preserved its distinctive characteristics as clear as any of the fevers or other general diseases." From all this we learn that this typhoid fever of Benton county is rather a singular sort of disease; first, we find it marked by the influence that gives periodicity to the intermittents, remittents, etc.; then passing by such imperceptible shades from one form of fever to another, as to make it difficult to say what it is; and again, appearing in the winter, and distinguishable with difficulty from true genuine *typhus*, but always, and under every circumstance, retaining and presenting its distinctive characteristic features.

* New Orleans Med. and Surg. Jour., January, 1850, page 461.

"I am now," continues Dr. Clark, "treating the disease here in Benton county, having five cases on hand, and having seen several others this fall. I have to-day conversed with two physicians from other parts of the county, and they both inform me that they have met with cases this fall." We once knew a noisy typhoid fever gentleman who, when called on, failed to state correctly the symptoms of ordinary remittent fever. We do not advise these gentlemen to make a similar trial, but know, nevertheless, that their time, thus employed, would not be mispent.

"Periodical fevers, intermittents and remittents (we are now quoting from Dr. C.) have been the prevailing diseases in this place and the vicinity during the latter part of the summer and fall. I have had to treat a great many cases, and found nearly all of them mild and manageable. Towards the middle of September, some of the remittents began to manifest more than usual obstinacy, showing a tendency in the latter stages to run into the *typhoid type*; and since then I have met with several cases of typhoid fever, that were clearly such, *ab initio*. The cases I have alluded to as under treatment at this time, are clearly distinct, and easily distinguished from the intermittents and remittents of a few weeks previous." This we think doubtful. "Besides these, my partner, Dr. J. C. Francis, and myself, have treated other cases this fall, that are now well or convalescent, and two that have died. Some of these cases, it is true, had something of the periodical type, for the first few days, and a few have presented this type, to some extent, throughout the course of the disease, being evidently affected by the endemic influence that gives origin to our autumnal intermittents and remittents. * * * Yet, in a large majority of cases of this fever, as it occurs here, the typhoid features have been so clearly marked, so distinct and predominant, that we have as little difficulty, ordinarily, in distinguishing it from our autumnal remittents, as we have in distinguishing the latter from the phlegmasia, or from an exantheme.

Although Dr. Clark has favored us with a detail of the symptoms in several of these typhoid fever cases, including the post mortem appearances in one, and in which the usual lesions of this affection were found present in the glands of pyer, and the elliptical plates of the ilium. Still, for the purpose of doing ample justice to the merits of his paper, and also showing the assemblage of symptoms upon which the Doctor relies during life as diagnostic of typhoid fever, we propose copying, nearly entire, case the second, and which is as follows: "Charles, a negro boy, eighteen years of age, the property of Mrs. Estill, living one mile from the village; has always been a very stout, healthy boy, engaged in laboring on the farm up to the time of his attack; has never had any serious indisposition since his childhood, nor any particular exposure recently. After complaining of a headache, and being unwell for a few days, was taken, October 16th, with *slight coldness of the extremities, followed by fever*. I saw him, for the first time, on the 15th. Considerable heat of skin, especially about the forehead, neck, breast, and abdomen—lower extremities less—pulse ninety-six, rather

small and compressible; complained of considerable pain in the back of the head; was rather *restless and 'fidgety.'* His eyes had a peculiar sparkling appearance; seemed *easily excited*, noticing and watching everything that was said or transpired around him; skin had been dry for some days; marked pulsation of carotids and temporals; *abdomen tympanitic; gurgling sound produced by pressure over the right iliac region.* Third day—Charles' fever lasted all night; it subsided for a short time this morning, but rose again soon after taking a portion of quinine. * * * * Charles' fever continued to the twenty-fifth day, without complete *intermission*, so far as could be ascertained by intelligent nurses, during the whole time. He could never be said to be perfectly free of fever. After the first week, he began to have occasional sweats, especially about the head and neck; during these sweats his pulse still maintained its frequency and quickness. The pain in the head and cerebral symptoms continued about a week, during which time he was slightly delirious at night. His strength remained good, though he became considerably emaciated. His *bowels remained tympanitic* up to the twenty-second day, sometimes more so than at others; and I never failed to discover, by slight pressure, a distinct gurgling in the right iliac region. His dejections continued fluid, liquid, or watery, being sometimes changed temporarily by the remedies employed. After the first week he complained but little, usually saying he felt better, though his fever marched steadily on, with irregular exacerbations and remissions. By the twenty-fifth day it had gradually subsided or 'worn out,' without any crisis or critical discharges."

From the picture presented in the foregoing extracts, we are made to understand that during the prevalence of intermittent and remittent fevers, that whilst some of the latter that were at their commencement undeniably remittent, there were others, occurring in the same localities, and, for aught we know, in the same families, in which the remissions and exacerbations *were not so clearly marked. These were, therefore, typhoid fever from the beginning.* If, then, by typhoid fever, we are to understand a *continued form of fever*, occurring in a malarious locality, attended at the commencement with pain in the head, a quick and compressible pulse, ranging near one hundred, with a lax state of the bowels, and characterized by either regular or irregular exacerbations and remissions of fever, we apprehend that nearly every physician acquainted with Southern fevers will readily recognize it as one of the protean forms sometimes assumed by our bilious remittent fever; we say protean, because, during our professional career, we have occasionally met with cases of fever in malarious localities, accompanied with a mottled blueness of the surface, or extravasated blood, in the shape of ecchymosed blotches, with hemorrhage from the nose, the mouth, the bowels, and bleeding, together with many instances of enlargement of the parotid and sub-maxillary glands; but never, in any one case, enough of these symptoms, or in violence sufficient to make us so far forget ourselves as to pronounce the disease *typhus*, and treat it accordingly. And here, in this connection, it may not be amiss for us to ob-

serve, that while readily agreeing with Dr. Clark that definitions are difficult things, we, at the same time, beg leave to remind him, that we are alone enabled to distinguish one disease from another by the actual difference shown, on a careful comparison of the symptoms proper to each. In here taking leave (which we really regret to do) of the Doctor and his truly interesting paper, the result evidently of some attention to the subject, we will merely *hint nothing more*, that notwithstanding he may have frequently met with the disease in other places, "the table lands of Mexico and hospitals of Louisville and Philadelphia," that he, perhaps, places rather too much reliance on *tympanitis and gurgoulements* as characteristic symptoms, the latter in particular; as we now have, in our minds eye, an acquaintance who can, and frequently does, produce this symptom at pleasure, and who has, we believe, never labored, with this solitary exception, under any other *symptom of typhoid fever*.

As regards the lesions found in the glands of Peyer and intestinal follicles in typhoid fever, we merely have to say that, "although we believe these parts, in remittent fever, are generally after death found in a perfectly healthy state, nevertheless, it is certain, that cases do occur, *particularly of the more protracted forms of the disease*, in which the evidences of follicular inflammation of the lower portion of the small intestines, terminating, occasionally, in ulceration, especially of the glands of Peyer of the lower end of the ilium, are present. Such cases are referred to by Dr. Geddings, of Charleston, Drs. Stevens and Vache, of New York, and Dr. Harrison, of Cincinnati. A diseased condition of these glands is stated to have been found present, also, in all the cases examined by Dr. Richardson in the New York Hospital, in 1840, and the same lesion was noticed by Dr. McWilliam in the African remittent fever." Condie's Note to Williams' Pract., page 969. Similar lesions have, also, been seen and reported by Dr. Harrison in the yellow fever of New Orleans; and from all which, we consider ourselves somewhat justifiable in the conclusion that, if they are not always present in *protracted* cases of malarious fever, they are sufficiently often so, as to be viewed in the light of quite a common post mortem occurrence.

Having now, as will be readily discovered, denied to typhoid fever, in truth, and as such, an abiding place in the sylvan shades and rural retreats of our sunny South, the enquiry very naturally comes up, what, then, is typhoid fever? and where is its home? To these we reply, that it is a variety of fever, described by Louis, Chomel, and others, and believed, not only by some of these, but by others, to be identical with a fever of Great Britain and Ireland, known under the name of *typhus*. Of the correctness of the latter opinion are we so confident, that we feel certain nothing more will be necessary to convince any one, even the most skeptical, than a careful examination on *this subject* of the leading French and English authors. Under this conviction, we decline, at present, the consideration of their *identity*, or the circumstances under which they originate and prevail; referring those who wish to be more critically informed in relation to these matters, to the

able paper in the Charleston Medical Journal and Review, for March, 1848, from the pen of the reviewer of Dr. Bartlett's work on the fevers of the United States.

In now bringing to a close our remarks, and dismissing, for the present, the further consideration of the subject of typhoid fever, we venture the prediction, that had Dr. Bartlett, instead of visiting the hospitals on the eastern continent, and studying there the fevers of the Mississippi valley and the South generally, spent some time in observing and treating them in the malarious localities where they are engendered and prevail, that the profession would, probably, never have been favored with his decidedly learned and entirely elegant treatise on typhoid fever; and it still remains, to some extent, we think, a matter of regret that, since this publication so many Southern physicians, like an ancient philosopher on another occasion, with this talismanic book in one hand, and a lighted taper in the other, have gone forth at the *summer solstice*, at mid-day, under a burning sun, and amidst scorching sands and malarial hot-beds, in search of this, to them, until then, *great unknown*, and that, after many a weary pilgrimage, some, more fortunate than others, have returned crying, (*Eureka*,) I have found it. To all of these we tender our most profound acknowledgments and congratulations, with an assurance that we really, in viewing them in the light of discoverers, feel happy in the contemplation of the glorious felicity that awaits and surrounds them.

WETUMPKA, March 12th, 1850,

III.—*Report of two cases of Cephalhæmatomata, with some remarks on Diagnosis and Treatment.* By LEWIS SHANKS, M. D. Memphis, Tennessee.

A description of the ordinary tumor of the scalp in new born children, called *caput succedanea*, formed by effusion of the serum of the blood at the presenting part of the child's head, may be found in most of the obstetrical works, with its proper treatment and ordinary results; but there is a peculiar tumor of the head, which occurs soon after birth, that has not been fully noticed or described by the British or American authors, if at all, by any physician of the United States.

This is probably owing to the rareness of its occurrence. For its description we are mainly indebted to German and French authors.

Mr. Adams, of Glasgow, published in the *Northern Journal of Medicine* for December, 1844, some cases of this kind of tumor, with his own views, and those of several distinguished German and French physicians, as to its probable cause, pathology, diagnosis and treatment.

No cases of the kind having been described or reported, in the books or Journals common among the profession in our country, and the appearance and character of the tumor being well calculated to deceive even the most discriminating, without the knowledge of the existence of such an affection, and lead to a false diagnosis, unnecessary alarm and mal-practice, I present a brief account of a case which lately came under my observation, and a notice of another reported to me :

On the 28th of last November, Mrs. C., living about 15 miles in the country, gave birth to a child after a tedious, but not a very painful, or difficult labor. The child had a simple hair-lip, with an opening in the alveolar process, though not extending into the roof of the mouth.

Two days after the birth of the child, a tumor was discovered on the right parietal bone about its centre. The tumor increased in size for several days, until it attained an antero-posterior diameter of about two and a half inches, and a vertical diameter of about two inches, projecting out about one inch from the cranium.

In this condition it remained, without much change, except becoming more tense, and somewhat more pointed, for near three weeks, when I was invited, by one of the physicians who had been consulted in the case, to visit the child, for the purpose of aiding in determining the correct diagnosis and treatment.

The size of the tumor was described, and its condition from the examinations made of it, as indicating a hole in the centre of the parietal bone, and as being of the character of spina bifida, a grave and alarming affection.

Having never seen a case of the kind, as described by the intelligent physician who asked my assistance in this case, I looked through the books at command, and finally found in the eleventh number of Braithwait's *Retrospect* the cases reported by Mr. Adams already alluded to.

Upon visiting the child about twenty-five days after its birth, I found the tumor described, though not quite so tense as it had been a few days before. The edges or ridge of bone surrounding the tumor was remarkably distinct, rising up with the periosteum and scalp, so as to produce the deceptive feeling of the bony margin of a hole in the skull ; but upon steady pressure from the edge towards the centre, the fluid could there be displaced, so as to feel the bone within the bounding ridge, under the fluid contents of the tumor.

It was, therefore, decided, that there was not a hole in the skull ; but that from some cause, the periosteum had been separated from the parietal bone about the centre, where it is less firmly attached, and the effusion consequent upon this separation had widened out, and distended the tumor ; and that the vessels of supply, for the rapid growth of bone in infancy, coming from the surrounding parts, to this portion of the bone, had been intercepted by the fluid effused, and therefore the

osseous matter was deposited around the margin of the tumor, and somewhat extending up, with the periosteum and scalp covering it, thus forming the sharp and shelving bony ridge around it.

This bony ridge circumscribing the tumor, giving the impression of an opening in the cranium is the most striking peculiarity, and is of the greatest practical importance in this form of *cephalhæmatomata*, and only requires to be known and understood, to form a correct diagnosis.

Cephalhæmatomata is described by the German and French to occur in three forms: under the aponeurosis, the periosteum and under the cranium separating from it the dura-mater. Of the first variety, Mr. Adams has seen but one case. The third form cannot be positively determined before death.

After deciding upon the above case, it was determined to institute no treatment unless the tumor did not subside in a reasonable time. In this expectation, however, we were not disappointed, for without any applications to it, in two or three weeks it had entirely subsided.

About a year since, Dr. Frazier had a case very similar to this, though the tumor was not quite as large.

Under the use of greatly stimulating applications, consisting mainly of muriate of ammonia, in about six weeks it was cured, or got well itself.

In the case of Mrs. C. Child, in consequence of the size and continuance of the tumor, there was much anxiety and alarm as to the probable consequences; and before I saw it a difference of opinion arose among the physicians as to its character and the proper treatment; some regarding it as being really an opening in the bone, and of the character of *spina bifida*; others, as being novel in its appearance and character, but less grave in its probable results. This difference in diagnosis lead to difference of opinion as to treatment. While some were in favor of trusting it to nature, others advocated the more active course of stimulating applications, and also of opening the tumor.

This natural diversity of opinion in a case so ambiguous is alluded to for the purpose of showing the importance of a knowledge of this variety of *cephalhæmatomata*; inasmuch as the result of experience in its treatment proves that, let alone, it is almost always in time and by the efforts of nature cured; but cases are reported by Smellie, and others of death from hemorrhage, resulting from opening these tumors. Caries of the bone and an exhausting and fatal amount of irritation and suppuration has also occurred from opening and admitting the air into the cavity of the tumor.

IV.—*Occlusion of the Vagina.*

The following case is at your service, if you think it worthy of an insertion. Mrs. H., aged twenty-four, of sanguine nervous temperament, was married some time in the fall of 1844. Six months after marriage had suppression of the catamenia for six or eight weeks; during which time complained of none of the first symptoms of pregnancy, such as nausea, etc., and attributed the suppression to taking cold. Her husband called on me for advice; I suggested pregnancy, and requested him to consult his lady again before prescribing. I reminded him of a change in the appearance of the breast; slight pains occasionally in them; the dark circle and white pimples to be seen around the nipple. On his return next day, he informed me that such a thing could not be, and insisted upon my prescribing for the case. I gave him Dewees' preparation of compound tincture of guaiacum, to take, in teaspoonful doses, three or four times a day; to be slightly bled, and to take a hip bath at night. Some two days afterwards, I was called to see her on account of a free hemorrhage from the womb. On my arrival, I discovered at once every indication of an approaching abortion. I immediately bled her, gave her a large opiate, used cold cloths to the abdomen, and enjoined strict rest, in a horizontal position. In the course of two hours the pains subsided; hemorrhage ceased in a great measure; she became easy and quiet, and dropped into a sound sleep. I left her, with directions to repeat the sach. saturni and opium, cold cloths if the hemorrhage returned. Next day I was informed by her husband that a small ovum was expelled about eight o'clock at night, with two pains only. Three or four days after she had a chill and fever, succeeded by peritonitis, which continued for several days, and which was promptly arrested by Dr. Thompson, who saw the case regularly. He informs me that occasionally she would discharge shreds of membrane, accompanied by a very fætid and acrid discharge; and finally, after some three weeks, the balance of the placenta was thrown off. In the meantime, washes were used, with a view to cleanse the parts, and to correct the discharges. This matter was given in charge to her aunt, who attended to using the syringe regularly. But, in attempting to use it, the lady often complained of its introduction, and would prevent her from passing it freely, so as to produce the desired effect. The consequence was, that the secretions were in part retained, and became so acrid as to excoriate the labia, perineum, etc. Complete obliteration of the vagina occurred within the next two months, for the want of proper attention in the use of the syringe, or failing to comply with the Doctor's directions. Having recovered slowly from this attack, she discovered that the vagina had closed, and that it was impossible to have a perfect congress. She remained in this situation for near three years, when she consulted my friend, Dr. Wm. H. Thompson, who, by an experiment, discovered a *cul de sac* of not more than half an inch in depth; an effort was made, by Dr. Dougherty and himself, to remove it, by cutting through this adhesion by a small delicate scalpel. Al-

though the parts were freely incised, the operation proved unsuccessful by returning again. In the month of March, 1849, she was again placed under Dr. Thompson's care, with a hope that another operation would be attended with more success. A few days after her arrival, I was requested by Dr. T. to assist him in the operation. On my first interview with her, I learned the history of the case for the last five years, and had an opportunity of examining the parts as they were. The labia majora were seen to be perfect in appearance until separated, when a cul de sac, one half inch in length, was exposed; embracing simply the labia, nympha, and the clatrices of the coherent mass, clitoris natural, urethra in situ, and natural in appearance. Perhaps, it would be well to remark, that this lady had menstruated regularly, tho' painful, and of long continuance; and, in coitus, enjoyed it extremely, or as much so as at any time previous to the accident. In examining the cul de sac, a small hole or opening could be seen, that communicated with the upper portion of the vagina, through which the catamenia flowed very slowly, and which, no doubt, produced the pain; perhaps from the accumulation in the upper part of the vagina, or, in other words, the flow from the uterus was greater than the small canal would permit to pass, and hence the pain during the menstrual period. The examination through the rectum discovered a thick and hard mass in front, some four inches in length; farther up the rectum, a small open space and neck of the womb could be distinctly felt. We placed her upon her back, opposite to a large window, and passed a two bladed speculum into the cul de sac, which gave us a fair view of it. I then passed a small silver pointed probe, not larger than a small knitting needle, with some difficulty, through the small opening to the upper and posterior part of the vagina, a distance of five inches. We at once determined to take this probe as a guide, and to use a small delicate knife, one-fourth inch wide, round at the point, with two cutting edges. Cutting from side to side, so as to avoid the bladder and rectum, we passed this knife, the first trial, some three inches; it was then withdrawn and carried across the first incision, about two inches deep; a probe about the size of a common straw was passed, with some difficulty, as far as the knife had gone. She was then directed to use this probe three or four times a day, previously dipped in mucilage of elm or sweet oil. The third day we visited her again, and made still further incisions in the same places, and extending them up in the direction of the canal to the womb. Probes of still larger size were then used. Our visits were made regularly every second or third day, and our efforts continued with the knife and probe until we succeeded in passing metallic probes, one inch and a quarter in diameter, through this hard, fibrous mass. The pain attending the cutting and use of the probes was extreme at times; especially when forcing the large probes up the canal or opening. During the time she was under treatment she lost but little blood; her appetite continued good; bowels regular, with little or no fever occurring; complained of soreness of the abdomen oe-

casionaly ; periods continued regularly, free from pain after the contraction had been partially opened by the probes. -

The time required in breaking up this contraction was upwards of three months. She returned home, with directions to continue the use of the longest probe regularly. In a conversation with the husband of this lady, I asked him particularly in regard to coition. He remarked that he could not at any time pass the contraction, (although she still uses the longest probe,) yet the parts yielded more readily, and permitted an entrance of four or five inches. A single artery was wounded by the knife, which bled, during our absence, perhaps a half pint ; plugging the canal arrested it at once.

We intend, at some future time, to make this opening still larger, so as to enable them to cohabit with ease.

H. J. HOLMES.

SPRING RIDGE, Miss., Feb. 3d, 1850.

V.—REPORT on the *Diseases of Cross Keys, (Macon county,)* for the current year. Read before the Alabama State Medical Association, at Montgomery, in December, 1849. By E. Fowler, M. D., of Cross Keys, Macon county.

Cross Keys and vicinity comprise a scope of country of about eight miles in extent or length, and from five to six in breadth. Its latitude, $32\frac{1}{2}$, and its longitude, 9° , west from Washington. The most striking feature in the topography of this neighborhood is the river Tallapoosa, coursing from east to north-west, and joining the northern line or base of the section embraced in my practice. Discharging itself into the Tallapoosa, and running at an angle of about 95° to it, is the full and flowing Colabe Creek. At a still further distance from the river, runs the creek Cubahatchee, which forms a junction with the waters of Tallapoosa, some three miles below the mouth of the Colabe.

From the bank of the river, extending back to the distance of more than a mile, the country presents an unbroken level ; and the same feature marks the creek bottom, but of less extent. Geologically, we have, in this extended flat, the tertiary formation, with a rich alluvial coating or deposit ; but, to a very considerable degree, there is a stiff, unyielding soil, aluminous in its character, with a trace of lime. On the south of the Cubahatchee, the soil abruptly changes to the calcareous ; so that the tertiary here forms the dividing line between the granite region, which lies some few miles above, and the calcareous.

Between the two creeks above named, is an elevated plain, rising gently from the low-lands of each, and, extending east, forms a beautiful table, of moderate fertility; soil being the tertiary sand, with vegetable admixture. This is distinguished both for the almost entire absence of fevers, the dry, elastic atmosphere, and the quiet beauty of landscape.

The winter and spring months, at Cross Keys, in 1849, were marked by the mildness of the occurring disease; unlike the corresponding months of the preceding year, which were characterized by a very general prevalence of cutaneous affections, roseola predominating, and a severe form of cerebro-spinitis. The opening months of this year were signalized by an entire exemption from diseases of either class.

That condition of the atmosphere announcing the invasion of cholera within our borders, its manifestations being upon the bowels, came with the days of March. Diarrhœa or cholera was the leading disease of the month. Pains, sharp, cutting, and pinching, were almost always present. In many instances, these symptoms were present, and the bowels obstinately constipated. Neither phase of the epidemic required but little medication.

In April, a case of disease, the physicians of this part of Alabama have, fortunately, thus far, been rarely called on to treat, the black tongue, came under my observation. It being the only instance of the malady I had ever seen, I examined it with much care, and marked its progress and termination with great interest. The first symptoms of the case were those of mild pneumonia, accompanied with a highly injected condition of the membrane lining the mouth, etc. Small, transparent, and watery vessels were observed to rise just anterior to the velum palati, enlarge in circumference rapidly, and coalescing. Such was the first stage. The several vessels having united, forming larger, spots their transparency changed first to a turbid opaque, then progressively shading off to a very dark brown.

Progressing steadily to its termination, the eruption approached to within a shade of perfect black. The disc of each vesicle *retracting*, the retraction or sinking soon passing over the full area of each; their surfaces became fissured, rough, and uneven, and now the contents of the vesicles, at first fluid and limpid, resembled baked venous blood. As far back as the anatomy of the parts would admit of an examination, the tongue being forcibly drawn forward, the disease extended. The attending pain of the mouth, throat, œsophagus, bronchia, and stomach, was one and the same; *acute, lancinating and burning*. Much blackened and crisped membrane passed off by the bowels, at the crisis of the disease; showing its frightful extent. When the efforts of nature triumphed, and the orgasm resumed its wonted action, the blackened and deadened membrane was thrown off, revealing the newly formed parts, beautiful for their delicacy of organization, and coloring. The constitutional disturbance was of the greatest import: delirium, raging thirst, hot, dry skin, rapid, feeble, and small pulse, tremor of the muscles, syncope, if raised out of the horizontal posture, almost utter exhaustion of muscular and nervous power.

The true cognomen of this malady is erysipelatous pneumonia, or, erysipelatous of the mucous membrane.

Between the 27th May and June 16th, occurred the few cases of typhus and typhoid fever; the latter presenting severe complications of cerebral, thoracic and abdominal disease, the eruption, in each instance, peculiar to it, manifesting itself.

The cases recorded under the head of *typhus* in the annexed table, were singular from any ever before met in my practice. The onset of the disease was sudden. The patient passing rapidly from a state of full health within a few hours, to one of grave disease. It was characterised by a sudden loss of muscular power, pain not acute, and fullness of the head—pulse threadlike, feeble, and rapid, varying from 160 to 170, and 200 (!) per minute—temperature of the head high—of the chest slightly above natural; but that of the abdomen and extremities normal—the intellect calm and clear to the last—emaciation rapid, and to a degree never before witnessed—tongue perfectly unchanged—bowels unaffected, discharges varying little from health. One case terminated fatally—*brain* healthy—*meninges*, by evidence unmistakable, the seat of the affection.

(As I design to write out these cases for publication, a fuller account is here unnecessary, and, in a report of this kind, would be out of place.)

Fevers of the intermittent, remittent, and congestive type, were attended, in an unusually large number of instances, with convulsions; the ratio being as high as *one in eleven*; and in this estimate no note is made of those cases attended by partial spasms of the extremities. By far the greatest number of cases were adults; but *three* being children; in which convulsions occurred. Insensibility and stupor were present very generally during the continuance of the frightful complications; for frightful they were, from their excessive severity.

Briefly, the fevers of 1849 were distinguished (in my practice) by cerebro-spinal and enteric complications.

Report of the Committee appointed by the Alabama Medical Association, at its Annual Session, held at Wetumpka, in March, 1849, to take an account of diseases occurring at Cross Keys, Macon county, in 1849. By E. Fowler, M. D.

1849.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Deaths.
Anasarca,	3						1	1				1	6	
Asthma,				1									1	
Aptha,			3				2		1	1	1		8	
Abscess of Thigh,							1						1	
" of Tibia,							1						1	
Parotid Gland,							1						1	
Mamma,									1				1	
Peritoneum,									1				1	
Abortion,							1		1				2	
Apoplexia,								1			1		2	1
Bilious Vomiting,					1	1		3					5	
Bronchitis, Acute,				1	1			3					5	
Chronic,			2	1									3	
Pleuro,									1				1	
Catarrhal,		6	8	5							4	1	23	
Burns,										1	1		2	
Boil,								1					1	
Colic,	1							1	1				2	
Constipation,							1	1	1		1		3	
Cerebro-Spinitis,								1					1	
Croup,						1							1	
Cholera,	1												1	
Cholera Morbus,	2	1	1	1	1								5	
" Infantum,			1	1									2	1
Convulsions,														
Chlorosis,			1			1				1			3	
Colitis, Acute,	1		2										3	
Caput Coli, inflammation of,	1	1											2	
Colitis, Chronic,	1								1				2	
Coup de Soleil,								1					1	
Cephalalgia,	1	1	2										4	
Diarrhœa, Acute,			2		1			1					4	
" Chronic,			1		1								2	
Dysentery,						1	1	3		1			6	
Dyspepsia,							1			1			2	
Dysmenorrhœa,	1								1			1	3	
Delirium Tremens,									1		1		2	1
Epistaxis,	1							1					2	
Epilepsy,							1				1		2	
Erysipelatous Eruption,							1						1	
Enteritis, Acute,					2		1						3	
" Chronic,			1					1					2	
Gastritis,				1									1	
Gastro Enteritis,					2	2	1			1	1		7	
" Chronic,								2	1				3	
Eczema,										1			1	
Fever, Intermittent,	2	2	3	3	2	3	23	26	19				83	
" Remittent,			3	1	5	5	11	13	8		1		47	
" Inflammatory,		1							1				3	

TABLE CONTINUED.

1849.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Deaths.
Fever, Congestive			2	2	1	5				3			13	
“ Typhoid	1		3	1	1	2				1			9	
“ Typhus				2	4								6	1
“ Nervous Typhus			1		1								1	
Congestive Typhus,													1	
Fever, Continued					2	3	7	1	2	1			16	
“ Scarlet					2	3							5	
“ Bilious Congestive							3						3	
Gonorrhœa,						1					1		2	
Hæmatemesis,				1									1	
Hip Joint, disease of										1			1	
Hepatitis,				1									1	
“ Pleuro									1				1	
Hydrocephalus acute,					1								1	1
Hepaticization left Lung			1										1	
Heart Hyper. and valvular disease,				1									1	
Hemorrhoids,									1				1	
Influenza,							1						1	
Insanity, religious.													1	
Impetigo,	1										1		1	
Jaundice,							1						1	
Leucorrhœa			1				1						2	
Meatus Auditorius, ulceration of ..				1			1		1				3	
Metreto Phlebitis,								1					1	
Myelitis, Acute	1												1	
“ Chronic,					1								1	
Mamma, inflammation of								1					1	
Menses, retarded	1		1								1		3	
Neuralgia, face and neck,					1		1						2	
“ neck of Bladder,										2			1	
Ophthalmia													2	
Otitis,	3												3	
Pneumonia,	2	1	1										4	
“ Pleuro,	1												1	
Nervous Derangement,					1								1	
Pleuritis,		1											1	
“ Bronchitis,										1			1	
Psora,		1											1	
Parotitis,		1					1		1				3	
Rheumatism,				1	1								3	
“ Syphilitic,		1									1		1	
Spleen, hyper of													2	
Splenitis,						1				2			1	
Spine, contusion of			1										1	
Snake Bite,								1					1	
Uterus, hemorrhage of			1		1					1			3	
Engorgements,										1			2	
Urethritis	1	1											1	
Urethra, stricture of					1								2	
Whitlow,	1	1											2	
Uterus, prolapsus of		1									1		2	

Totality of Cases,

290

VI.—REPORTS by WM. B. JOHNSON, M. D., of Marion, Perry Co., Ala.

Read before the Ala. State Med. Association, at Montgomery, on the 13th Dec., 1849.

CASE 1.—*Laryngismus Stridulus*.—The subject of this case was born on the 21st of June, 1848. His father is of sanguine temperament, has enjoyed very good health; his mother of nervous temperament, and of feeble constitution. The son was remarkably healthy until some time in Feb. 1849, when his mother became a little uneasy in consequence of his holding his breath, during a violent fit of crying. He had several of these spells between this time and the middle of June. His general health remained good. About the 15th of June he had the first spasm that created much alarm, succeeding a violent fit of crying; the head and face became very red; struggled for breath, a few seconds; then ceased to breathe, to all appearance, for five or ten minutes; his arms and legs rigid, hands and fingers strongly contracted, attended with convulsive twitchings. His face became livid, then pale, and from his appearance, was thought to have expired by those present. When he commenced breathing it was accompanied by violent palpitation of the heart. In a short time, pale and exhausted, he sunk into a calm sleep, and in an hour or more he awoke apparently well.

He had two teeth some time before he had the spasm above mentioned; do not recollect how long. There was a recurrence of the spasm, on the 23d of June; another on the 1st of July. In the afternoon of that day, his gums were lanced, which produced a recurrence of the spasm, and this attended with involuntary discharge from the bowels of a very offensive odour. Between this time and the 1st of August, he had several spasms of the same character. About the first of July, his general health began to give way; he became weak and pale; his bowels were generally constipated. On the 24th of this month, he had an eruption on the skin, for the first time;—before the eruption came out, the pupil of his eyes were much dilated; a wild appearance seized him frequently, he was nauseated, and had efforts to vomit. The eruption then commenced on his cheeks, spread over his face, head, neck, and then extended to his feet and hands, covering his whole surface with a deep red blush, almost as red as blood. There was no elevation or roughness on the surface. While the blush continued, he was drowsy and sleepy, which continued from one to two hours. When the redness disappeared, he became very sick, and manifested signs of pain, with great jactitation, sometimes appeared to be dozing, then suddenly start and catch hold of the nearest object, as though he was fearful of falling; scream and cry for some time very violently, and continue in this state for two or three hours, then appear to be stupefied for a time. He had the eruption on the 26th, which went through the same course. It appeared that when he had the eruption, he was exempt from the spasm for some days previously and subsequently.

On the 27th, rode him out; on the 28th, brought him to Marion,

and remained until the 6th of August ;—within the ten days previous to the 6th, he had two or three slight spasms ;—returned home on the 6th ; he had the eruption on the 7th, 8th, 9th and 10th ; symptoms same as those described above, but the eruption was more erratic in its course ; vomited undigested food, coagulated milk and pap ; deep green fœces ; he became more feeble and stupid daily, and on the 11th, his parents left home with him ; traveled until the 20th, on which day they returned home. The eruption returned daily up to the 24th ; symptoms the same as before. On the 25th, brought him to Marion ; on the 28th, traveled with him to the prairies ; he had a slight spasm, the first since the 3d of this month. Returned home on the 12th of Sept. ; during the excursion, his general health was much improved, gained flesh and strength, became much more cheerful. On the 13th and 14th, had the eruption ; brought him to Marion on the 14th ; on the 17th, returned home ; he had the eruption in less than two hours after reaching home, before eating or drinking ; left home same evening ; returned on the 20th Oct., had the eruption same day left home. From this time, (20th Oct) returned home with him once or twice, with the same results up to this date, Nov. 19th.

When he was carried home in the morning, the eruption appeared the same day ; but if he reached home in the evening, the eruption appeared the next morning.

Returned home on the 31st of Oct. ; on the 1st of Nov., had the eruption ; very sick through the night, vomited frequently ; returned to Marion on the 2d :—on this day, the right parotid gland became much swollen. Since the 2d of Nov., he has had spasms very frequently, sometimes twice a day, for several days consecutively. On the 4th, he had the most severe spasm he has ever had, and much longer in duration ;—on the 15th, a slight spasm ; none up to this date (19th) since. His general health is good, has become fleshy, and is cheerful and playful.

He has never had the eruption from home with one exception, which was on the 2d of Nov. His father carried him about noon to a high hill, about a mile from home, the eruption appeared in an hour or two ; wind was blowing across the Cahawba river, and over an extensive bottom, about two miles distant from the hill. He never perspired while at home ; but generally perspired very freely the first night after leaving home. Invariably after having the eruption, his bowels were disordered ; his food passing from him undigested, mixed with lumps of a very deep green color, and quite offensive.

If he remained at home four or five days, his stools become very thin, and of a deep green. Soon after leaving home, they become natural, and consistent in a day or two, and sometimes in less than a day. In some instances the eruption was confined to his head and face.

The plantation of Mr. O. T. J., the father of this child is on the east side of Cahawba river ; his dwelling is about a mile from the river, at the juncture of the river bottom, and pine wood land. From the bank of the river, within a quarter of a mile of his house, is a very dense forest,

with thick undergrowth. The soil is a rich alluvion, some parts subject to inundation, and some small cypress swamps. He has a large family of negroes, who have enjoyed very good health, and are as exempt from malarious diseases as the inhabitants of the pine hills in his neighborhood.

I visited this child but seldom; have never seen him while the eruption was on the skin; nor have I ever seen him in a spasm, but once, and that was very slight. This report is made out from a history furnished me by his father, who is an acute observer, and a very intelligent gentleman. I visited him on the 1st of August, in consultation with Dr. Gordon, and we determined to put him on a course of mild aperients, and counter irritants to the spine. After a mercurial cathartic or two, his bowels were kept open by the use of syrup made of senna and manna. His spine was rubbed morning and night, with the following embrocation, or with a similar preparation:

R. Acid Acetic ℥ss.

Sp. Terebinth ℥iii.

Aqua Rosæ ℥iiss.

Oil Lemons i gutt.

M.

This course appeared to afford more relief than any other; and while he used the embrocation, he was almost entirely exempt from spasm. It is unnecessary to make any remarks upon the treatment laid down by authors, and to enumerate cases, would be only to give a history of failures, and the vagaries of many splendid theorists.

I am of opinion that the cause of the spasm, was a disordered state of the primæ viæ; but from whence originated the Erythema? It is generally believed to arise from disordered stomach and bowels, and perhaps exclusively; but in this case, it must have depended upon malarious influence alone.

CASE II.—Mollities Ossium of the Cranium.—L. A., born 1793, neuro-sanguin temperament, slender frame, dark complexion, black hair, general health in early life, delicate, much afflicted with eruptions on the skin until the tenth or twelfth year of age. When about eighteen contracted syphilis. At the age of thirty-two, health perfectly good, until his forty-fourth year, with the exception of a furfuraceous disease of the perineum. At this time the right eye become very painful with congestion of the parts. Shortly after this time, in scratching his head, discovered that the top was insensible to the touch and about the centre of the sagittal suture, (to use his own words,) "it gave the sound of a dry gourd," and from frequently feeling it, soon discovered an elevation which he supposed to be a "wen." It continued to increase slowly until it attained the size of half an hen's egg, which process extended through eighteen months. It then began to subside, he supposed, from abstemiousness and a trip to Texas; his general health having improved very much, more particularly, he said, from having abstained from sexual intercourse. But upon his return home, the part began to subside, became soft and gradually sunk as deep, below the

surrounding parts as it had been elevated above them; and from that time the bone began to soften on the right side in the course of the squamous suture continuing its course to the mastoid portion of the temporal bone. From this point there was an obtuse pain extending across the os frontis to the nasal tuberosity, but without any destruction of the bones. At this juncture after the pain had subsided, the process of destruction again commenced in the sagittal suture and continued until the parietal bones became loose; keeping the course of the sutures, until it reached nearly to the base of the skull on the occipital portion. The greatest ravages were mostly on the right side of the head.

In 1845, eight years after the commencement of the disease, the superior and inferior maxillary bones commenced wasting, and continued until there was scarcely a trace of the inferior maxillary left. About this time his left eye became very weak which he said was hereditary.

In the early part of 1844, a slow reparative process commenced at the point where the disease first made its appearance, and followed the same course. From the unprotected state of the brain and atmospheric pressure, the head had become much extended in a lateral direction, giving it a very unusual and unsightly appearance.

During the time that the softening was going on, (or perhaps it would be more correct to say absorption,) he suffered with great pain and heat, and the only temporary relief he could obtain was by holding his head under a waterspout until it became very cold, and this he was forced to do several times during the night to procure sleep. As soon as the part became soft he was free from pain, until the disease took a new start, which varied from one to two or three months.

At this time an insatiable thirst came on, and he drank several gallons of cold water every twenty-four hours. He stated that his lower bowels felt dry and were never moved without an enema. Never had any moisture in his mouth; passed urine commensurate with the water drank; appetite generally very good.

Up to January, 1845, he was able to walk about, but from this time he was never able to maintain his balance. Some time the latter part of this year a small tumor formed behind the ear, and another on the back of the head, which suppurated, and discharged pus mixed with hard granular substances.

The destruction of the bones continued until it reached the shoulders.

At the time I examined him in January, 1845, he felt giddiness; any strong diet increased the pain in his head, but little difference in an erect or horizontal position. Had never been subject to fevers; pulse regular; sleeps well when not prevented by pain.

There was at times a sudden sensation in the right ear like the stroke of a hammer unattended with pain, and if in an erect position would fall, if not supported.

Hearing tolerably good, but on speaking there was a disagreeable, harsh jarring sound.

He married early in life and has left a large and healthy family.

He attributed his disease to excess in venery; but how far this contributed to it, if at all, is a problem not easily solved.

His father died of phthisis pulmonalis, and one brother at the age of 44; his mother was a woman of robust health.

In 1817 his lungs became much diseased, and he expectorated very large quantities of purulent matter.

He retained the full powers of his intellect to the last moment, and died on the 14th of February, 1848.

Living about ten miles from me I did not learn his death for several days, and consequently no post mortem examination was obtained.

He never used any medicine, or any effort to procure relief; believing very correctly that his disease was incurable.

It would be worse than useless to call up what has been written upon this subject, to speculate upon the opinions of all that have preceded me in this singular disease. It would be only recounting failures and the wild vagaries of men. And all we shall say further, is, that we know what is wanting; a remedy that will put a stop to the destruction of bone. But what is that remedy? The answer, time and diligent research alone can give.

CASE III.—Scalds and Burns.—Looking upon it as a duty we owe to each other to impart whatever knowledge we may possess, that may be useful, I will mention to the Association my treatment of scalds and burns. I have used, as a first application, but one remedy for twenty-six years, and as it has proved in my hands superior to all others, I feel content with it, and if there is such a thing as a specific, warm blood in scalds and burns is such, applied to the parts, and covered with bats of cotton. The suffering of the patient is relieved the moment the parts are covered with it.

If the injury is superficial, no after dressing is necessary, but letting it remain on until the parts are so far healed that the dressings will drop off. If deep, and suppuration takes place, it should then be treated as ordinary ulcers; if suppuration is so profuse as to exhaust the patient, I wash the parts freely with a strong decoction of soot, covering the parts while wet with dry bats of cotton, as often as necessary.

I have treated some of the most hopeless cases with entire success in this way; a number who were in a collapsed state, and suffering the most intense agony, have been relieved instantaneously, the pain relieved, pulse rising, and entire comfort restored.

What is the *modus operandi* of this remedy? It cannot be by protecting the parts from contact with the atmosphere, but by the peculiar properties of the blood coming in contact with the denuded nerves. This is a subject which I wish investigated by the profession and reports made upon it at our next session. I have had no time this morning to enter upon it and elucidate my views.

Urtica Urens.—I made a report of some cases of my trials of this article in hemorrhage, at our last session, and now have to state that I have made further trials of it in hæmoptisis and epistaxis with very satisfactory results; I use it in saturated tincture alone—dose from one to two drachms.

VII—REMARKS on *Inflammatory Continued Fever*. By F. E. GORDON, M. D., of Marion, Perry county, Alabama.

There is a form of continued fever very prevalent in this region (Perry county) in the earlier part of autumn, and commonly called, even by physicians, typhus or typhoid fever. This is the cauma or burning fever of Dr. Good; inflammatory fever, as it is commonly called in England; and synocha, according to Cullen, Sauvages, and Lindus. Its characteristic marks are great heat of skin, quick and strong pulse, ranging from 100 to 120 beats to the minute, and urine of a high color. There is, commonly, no nausea or vomiting, and the bowels are, for the most part, either *constipated or natural*. The tongue, at first, is slightly furred with a whitish coat, which, in the progress of the disease, may become brown and heavy: but I have never seen sordes on the teeth or a *black* coat on the tongue. There is no typhomania; delirium is rare, and occurs only in the early stage, when the fever is at its height. If the patient is subjected to an active purgative, cold applications constantly to the head, and cold affusions at the interval of two hours to his body and limbs, the acute stage will pass off in three days, and with it the delirium. The common name of typhoid is objectionable, (as are misnomers in all cases in medicine,) because it influences the practice. The healthy condition of the alvine discharges prove, incontestibly, that the disease is not abdominal typhus, as does also the appearance of the tongue; while the whole group of symptoms has nothing in common with the typhus (mitior or gravior) of Cullen and the English writers. A very useful criterion by which to distinguish cauma from remittent fever in the beginning is, the absence of a pre-cursive chill. The disease steals on so gradually that the patient has a high fever before he feels sick enough to call in a physician. I say a useful criterion, since the quinine practice, which is so successful in remittent, is not applicable to cauma. I have tried it after the manner of Dr. Blun, of Demerara, as reported to the British authorities. viz: in the short apyrexia while the patient is in the cold bath. Though a warm advocate of quinineism in remittent, I cannot think it harmless in this disease. The exhibition of this salt irritates and distresses the patient exceedingly, and, instead of reducing the pulse, notably increases the number of strokes to the minute. I cannot agree with Dr. Eliotson, and some of our best physicians, that quinine is not injurious, nay, positively beneficial in many of the phlegmasia. My own observations at the bed side have tended to convince me that it only acts as a sedative when controlling the nervous system disturbed by malaria. And hence, too, it may be inferred, that I am not disposed to reckon this form of continued fever as of malarious origin; violent exercise and overheating, especially by those unaccustomed to them, frequently produce it.

The old, Hippocratic doctrine of a ferment, (Zume,) lately revived, and now so fashionable, cannot be applicable to this fever, whose crisis is very uncertain.

Frequently, after every unfavorable symptom disappears, the tongue being clean, and the sleep good, the undue action of the heart will persist until controlled by the continued action of digitalis and antimony, and, in this way, rather tending to corroborate the opinion of some of the French physicians that it is an "arteritis." As the two most prominent symptoms are heat of skin and excitement of the circulation, the remedies already incidentally referred to are chiefly indicated. The bowels are to be kept regular by laxatives, if necessary, and, in addition, it may be found useful to exhibit nitrate of potash, or some other diuretic, to aid the kidneys in eliminating the morbid matters, with which the urine seems loaded.

VIII.—*A Case of Amaurosis, resulting from a Snake Bite.* By N!
BOZEMAN, M. D., of Montgomery, Alabama.

Franklin, son of Mr. Blue, of Pike county, aged nine years, was bitten on the external malleolus of the right leg, on the 25th of July, 1848, by a viper known as the ground rattle snake. Dr. A. K. Graham was called to this patient about twelve hours after he was bitten, and found him in the following condition: There was swelling of the leg as high up as the knee; great restlessness, anxious expression of the countenance; pulse very frequent and feeble; irritability of the stomach, and frequent desire to pass urine. He administered, in large doses, hartshorn and sweet-oil, and applied the same to the wound. An active purgative was ordered, which, however, did not produce the desired effect, until an enema was employed.

I will observe here, that there was great torpidity of the bowels, and irritability of the stomach, throughout the whole course of treatment.

In seventy-six hours, the whole limb and right side of the abdomen, together with the corresponding axillary glands, were enormously swollen. The skin of the abdomen assumed a purple color, which, however, commenced fading with the diminution of the swelling, that took place in a few days.

The wound inflamed, suppurated, and eventually sloughed, thus leaving a healthy ulcer, about the size of a quarter of a dollar, which healed in a few weeks by the granulating process.

About the time the swelling commenced going down, there was a suppression of urine for twenty-four hours; it then passed naturally, as

regards frequency and quantity, but not quality. For four or five days, there was a large amount of white sediment deposited upon standing.

At this time there was a great pain in the head, with turgescence of the blood vessels of the face and neck, followed in a few days by strabismus, which continued for three or four months.

About five or six weeks after the symptoms already detailed, partial blindness, for the first time, was discovered, which has continued to the present. Occasionally, there would be attacks of almost complete blindness, lasting for three or four days, and attended with constant dilatation of the pupils; then would follow improvement of the vision, and the natural movements of the iris.

Where the ulcer healed on the ankle, there is a hard cicatrix, and is painful upon pressure.

DECEMBER 1st, 1849.

IX.—FACTS confirmatory of the contagion of Cholera.

[We publish the following letter without any acquaintance with the Author.—ED.]

MOBILE, March 25th, 1850.

SIR: I saw my friend, Col. P. H. Raiford, a few days since, just from near the Rocky Mountains, where he is superintending a nation of Indians, as Indian Agent, by appointment of the President. He is a gentleman of intelligence and experience, and the facts he related seem so conclusive, I thought I would communicate them to you. He remarked that the *Cholera* had prevailed amongst the *Indians* in his district, though to a limited extent, as means were adopted to cut off the contagion, and the disease ceased, which induced me to make further inquiries; and he proceeded to state, that on the 13th of May last, a party of 44 Indians, in all, left Montgomery, for the West, and that while on the way up the Arkansas river, several of them died of Cholera, and as they buried the bodies, their wearing and bed clothes were thrown overboard. An Indian woman died, though not of Cholera, as they thought. She left two children, and her bed and wearing clothes were retained and bundled up. The children and the bundle of clothes remained untouched and unharmed, at the Indian camp, near the village, for three weeks, when an uncle of the children came down for them, placing the children on a pony, and the bundle of clothes over his shoul-

ders; he, also, then in fine health. Thus equipped, he started early in the morning, and that night he reached a village called Chhaw, and died that night of Cholera. The same children and clothes were taken by another uncle, who died the next morning of Cholera. Thirteen of the natives died of Cholera, in Chhaw, which was, up to that time, entirely exempt from Cholera, and the citizens deserted their town. The Cholera ceased, and they are again entirely exempt from it.

These facts were related to me by Col. P. H. Raiford, who is one of the acting Indian Agents of the Western Tribes, and he assured me these were facts that came under his own observation; which facts prove, at least, the infectious, if not contagious, nature of Cholera.

Respectfully, yours, &c.,

HENRY M. HUNTER.

X.—On the Medical History of the Eastern part of Mississippi, etc.

By THOS. E. EVANS, M. D., of Decatur, Newton county. April 2d, 1850.

EDITOR OF THE JOURNAL—*Sir*: The following synopsis of the Medical history of this portion of East Mississippi, I think, may not be uninteresting to some of your readers. It embraces a period of ten years, from 1840 to '50. At some future day I will forward you a similar paper, on the rapid increase of female diseases, with their probable causes.

Newton, and the counties adjoining it, are generally high, broken, and sandy, interspersed with extensive reed brakes and rich alluvial bottoms, extending, in some cases, for miles; many of which, as those of Tuskelamera, Chumkey, Galasha, Gallahatta, Okahatta, &c., are subject to inundation. The timber on the high lands is, principally, pine, oak, hickory, and black jack; in the bottoms, water oak, swamp pine, wild cherry, mulberry, poplar, and some walnut. The reed brakes have but little, and some, no timber on them. The early settlers were mostly stock keepers, living much in the open air, and on horseback; cultivating only sufficient land to keep them with bread, depending for income on the sale of cattle. Their residences were principally on high sandy ridges, and separated a distance often of fifteen miles. Sickness rarely visited their homes; they were a rude,

healthy race; but about the year '40, the range having become broken, they sold off their stocks, and moved to other States, where they could more profitably follow their favorite pursuits. Those who remained, driven by necessity, engaged in agriculture. A new race soon took the place of the pioneers, and the axe was heard on almost every hill.

The progress of disease, however, was slow, as they cleared principally the high ridge lands, and men, with impunity, exposed themselves in a manner which, in Sumpter Co., Ala., where I practiced the year previous, would have insured dangerous, if not fatal sickness, and even those whose hardihood became the cause of fever, easily recovered. The diseases most prevalent, were Pneumonia, Pleuritis, Intermittent and Remittent Fevers, &c., and generally in the following order: Dec., Jan., Feb., Pneumonia, Pleurisy, &c.: April, May, June, July and August, Enteric Affections: August, Sept., Oct., Nov., Intermittent, Remittent and Inflammatory Fevers.

Remittent Fever was generally attended with a high grade of excitement, expending its force chiefly, upon the brain or bowels, but giving way readily, to antiphlogistic and mild mercurial treatment. The intermittents were mostly of the tertian type, and very manageable, except from gross imprudence. Out of one hundred and twenty cases of both forms, I find but one death, and that was caused by too early exposure, fire hunting. This success is not attributable to any superiority in the mode of treatment, but to the favorable location, and good constitution of the patients. This was the state of the public health until the fall of '45. (Sept.) In the early part of that month, there had been several severe attacks of synocha, in fact, most of the cases were disposed to run into a typhoid form. Suddenly, however, the condition of the sick became more favorable; heavy rains fell upon the parched earth, and new cases were among the things of the past. On the 14th, having been absent from home a few days, I was informed that one of our citizens, a stout, hale man, in the prime of life, had, upon the second paroxysm of ague, suddenly died. The history of the case soon satisfied me that it was a case of congestive chill. The community were panic stricken; for the disease had, in the counties above, left its desolating touch in almost every house. In order to calm the public mind, I apprised a few persons of intelligence, in each neighborhood, of the proper mode of treatment, and left with them the necessary medicines, directing the rest to apply to them for aid, until a physician could be procured. By these means, only very few, of hundreds attacked, fell victims to the disease.

The winter of this year was unusually warm and rainy, which produced a fatal typhoid pneumonia; the average mortality from which, although they received unremitting attention, averaged ten per cent. This form of pneumonia never having appeared here before, and the first few cases having terminated fatally, in consequence of the patients anticipating no danger from a "bad cold", rendered them morbidly sensitive and alarmed. The nervous energies of those attacked sunk, and in some cases, which might, under more favorable auspices, have been saved, terminated fatally, in twelve hours. It was, indeed, a

gloomy winter, nor was much relief afforded by the opening of the more congenial spring; for then scarlatina invaded almost every house. I have seen this disease in England, in the North, and in Alabama, but no where did its ravages make more havoc than here. Most families had never seen it before, and conceiving it to be a species of harmless rash, or slight sore throat, and using any and every remedy presented by ignorance, large doses of calomel and strong whiskey, in fact, the most heterogeneous compounds. Living at a great distance from proper medical aid, but surrounded by troops of "knowing men and women," with their infallible remedies, the scythe of death cut down more or less of the little innocents in half the families of the county. As soon, however, as they received more correct information, the disease became manageable, and many people treated their own cases very successfully.

It was not without apprehension, that I awaited the approach of the sickly season. The heads of almost every family were debilitated, by constant anxiety of mind, and long continued watching. The weather was unusually dry and sultry, in the day, with heavy and cold dews at night; in addition to which, during the two previous winters, large tracts of land, chiefly rich bottom, had been cleared; the timber on which was in that stage of decay, so favorable to the production of fever. Cotton farms, too, could be seen all over the country, and the constant intercourse of the now numerous families, in night-watching, had produced an extra thirst for, and indulgence in, the use of ardent spirits. Wherever I turned, I could see no hope, but that the destroying angel would sweep from among us many a good sire and sturdy son. July and August passed with but little sickness, when, after a drought of eight weeks, the flood gates of heaven were opened, and torrents of rain fell, inundating the newly cleared bottoms, and though, by the mass, it was hailed as a blessing, yet anticipating a correspondent want of showers in October, and the procrastination of fever for a time, having ever noticed that late sickness was always most fatal, I apprehended much sickness.

About the 3d of October, the fever season commenced, at first mildly, but, after a few days, characterised by a sudden loss of vital energy and motive power. Strong men falling at their work with hands, arms, feet, and legs, cold as marble, and covered with clammy sweat; nose pinched, face puckered, making men of thirty look like septuagenarians. The whole countenance wretchedly anxious; chest, abdomen, and sometimes head painfully hot; sometimes delirious; at others, speechless; the stomach rejecting the blandest and most pleasant liquids; tympanitis, pain in the occipital region; sometimes diarrhœa and constant micturition; at others, stranguy and constipation; tongue coated with a white or brown crust; occasionally clean, but red round the edges and tip. Some stated that they had received premonition by a slight chill the day previous; others averred that they felt as well a few moments before the attack as they ever did; while even after convalescence, some could tell nothing; the past was an airy vision. The average mortality was: of those prescribed for within twelve hours

of the invasion, 3 per cent.; twenty four hours, 8 per cent; forty eight hours, 10 per cent. How this will compare with other practitioners' average I know not; my object being to state facts as they presented themselves. As regards treatment, my great object was first to restore the circulation to the extremities by stimulating applications, and hot dry frictions—relieve the congested organs by cups, with or without scarification; regulate the liver, stomach, and bowels, and, having succeeded in producing reaction, guard against inflammation upon every point. Quinine has proved a very valuable agent in all cases, when administered at the proper time, and in sufficient quantities. I shall not stop to debate the question, whether diseased action, as above described, is congestive fever, or whether any train of morbid phenomena can properly be called so; my mind being rather practical than speculative, and the subject, without being yet settled, having been argued at length, pro and con, by much abler members of the profession than I am. The winter of '46 and '47 was unusually healthy; and even through the spring of '47, with the exception of bronchitis, a mild form of scarlatina, and pertussis among children, there was but little work for the physician.

In August, fever again commenced. First, we had a mild remittent form, easily controlled. About September and October, it became graver, with here and there a tolerably tough case of intermittent, and, in bad constitutions, synochial symptoms would supervene. Then we had pure but mild synocha. On the whole, this might be considered as a tolerably healthy season; scarcely one hundred cases required medical treatment occurring in my practice, which extended over an area of fifty or sixty miles. The mortality was very slight, not 3 per cent.

The winter of '47 and '48 was sickly. Bilious pneumonia and typhus, pleuritis, hepatitis, in fact, almost the whole family of inflammatory diseases prevailed among us. Mumps also went through the country, and gave us plenty of work. Those who had suffered from fever in the fall sunk rapidly, and many died. About 10 per cent. of the pneumonia cases were fatal.

1848 and 1849 were so similar in their character that they may, for brevity sake, be classed together.

In the spring we had scarlatina maligna, pertussis, bronchitis, and a most novel kind of continued fever, so very singular in its effects, that I purpose devoting, at some future day, a separate article to its history. The mortality, however, was very slight.

Enteritis and gastritis were very prevalent during the summer, and severe cases of cholera morbus, magnified by some into cholera asphyxia, were by no means rare. Twelve cases in '48 and eighteen cases in '49, of typhoid pneumonia also occurred in my practice, and several in the practice of some of the gentlemen in the adjoining counties. I have also been informed, by a physician of high standing, in Sumpter county, Alabama, that this disease was by no means uncommon there. Early in the fall of both '48 and 49, typhoid fever appeared among those families living contiguous to our swamps and large cane-brakes, and left traces of its baneful effects which will be long remembered.

Some families, I am informed, lost nearly all their members. The mortality, however, in the county was not heavy; from all the data I can collect, it does not exceed 4 per cent. Towards the close of each season it became milder and easily controlled. Many cases lasted from thirty to fifty days, and some as long as two months; reducing the subjects to the brink of the grave, and leaving them mere skeletons. I do not deem it necessary to give either the symptoms or treatment, as I presume your readers are as well acquainted with both as I am; and I have not the vanity to suppose that the changes from the plan laid down by our best writers and lecturers which I felt it necessary to make, were different from what any intelligent man would have made under the same circumstances. Suffice it, the cases were well marked and numerous, and, as far as I can learn, there is no difference of opinion upon the subject here.

The winters were healthy; so much so, that health formed the general rule, and sickness the exception. I do not think twenty adults received medical aid during either season, though, in the winter of '48, I was absent from home, and speak not from observation, but report.

I have been as short as possible in this communication; my object being merely to show that the progress of disease and fever, both as regards number and severity, increases in a double ratio with population; that let a country in its primeval state be as healthy as it may, no sooner are the low lands laid open to the sun's rays than its inhabitants must pay the penalty of civilization.

Having spent ten years here in close and unvarying observation, I trust I may, without egotism, say, that I have some grounds for speaking positively on this subject.

Dr. T. E. Evans, New Orleans, La., April 2^d 1850.

XI.—*On the Diseases of Mobile, Alabama, from March 1st to the 1st of December, 1849.* By RICHARD LEE FEARN, M. D., of Mobile.

During the latter part of the winter, the scarlet fever, which had prevailed with great malignancy already eighteen months, continued its ravages with unabated violence, visiting all those who had previously escaped.

In most cases during March and April, the cerebral symptoms at the onset rendered the system insensible to remedial agents. In some, indeed in all the families, where belladonna was used as a prophylactic, and there were many that came under the cognizance of the committee, the cases were of a hopeless character, from the first day of the at-

tack. The scarlet fever continued until June and July, abating and disappearing for want of fuel to feed its fires.

During the months of March and April, there were a few sporadic cases of Asiatic cholera, on the steamboats and in the lower parts of the city, in the vicinity of sailor boarding houses and filthy shops and wharves. In the city an unusual number of cases of cholera morbus, and other affections of the bowels were observed.

During the month of May, no disease appeared to prevail paramount; the general range was of light fevers. Diseases of dentition, and some few cases of typhoid pneumonia in old persons and children. During the latter part of the month, the emigrant ship *Erin go Braugh* brought a large number of passengers. A great portion were suffering with typhoid or ship fever; they were scattered over the city in various quarters, the greatest number at one point being at the city hospital. Out of something more than sixty of whom your committee were able to get information, three or four only died after the second day from their arrival. None other of the inmates of the hospital were affected by the disease, nor did any cases occur in any part of the city, after this period. Some cases of typhoid pneumonia as stated above, and a few cases of typhoid fever before the arrival of the *Erin go Braugh*, had occurred in the city.

During the month of June, intermittent and remittent bilious fever were of most frequent occurrence; the only circumstances requiring notice was, in a majority of the cases, the certainty and rapidity of recovery on the first administration of quinine, in the first apyrexia, a second rarely occurring; none of these proved fatal in the city. We would here remark, that during the last half of this month, jaundice following disease of any description was unusually frequent, and the same peculiar type continued until the 1st December, in a very remarkable manner. The city was unusually free from disease and death during this month.

During the month of July, your committee were able to obtain reports of a number of cases of convulsions in children, many of which were treated successfully by chloroform in the onset and the usual evacuating remedies afterwards. Cases of bilious colic and bilious intermittents, remittents were frequent this month. Some cases of a mixed type, from the river and swamps above the city and the marshy lands in the 5th or the lower ward, presented the following symptoms: delirium, stupor, vomiting occasionally, diarrhœa alternating with obstinate constipation, quick irregular pulse, tongue, in some of the cases, with a thick nap of cotton, edges red and swollen, in other cases, a brown fur along the middle portions, the edges cherry red, and the tongue shrunk, small and hard. No cough or irritability of the lungs; no pain or tenderness of the abdomen, and, in rare cases, only a slight tenderness on pressure of the epigastrium; but in all the cases a very distressing fullness of the head, stomach and abdomen, which was neither relieved by vomiting or purging. These attacks lasted some fifteen or sixteen days, and left the patients extremely weak and prostrated, and those that recovered, averaging seventeen in 20, convalesced

slowly. Blue mass, calomel and ipecac, where there was no diarrhæa and mucilaginous drinks, counter irritants, diaphoretics, Dover's powders, &c., in other cases, constituted the most successful treatment. Quinine was not, as far as we are informed, borne well in a single instance of this disease.

During the month of August there was little or no increase in the amount of disease, intermittent fevers and a few cases of remittent, continued, cases of bilious colic, frequently severe, a few cases of colica pictonum, infantile affections incident to the process of teething, became more numerous. There was no mortality in the cases of fever originating in the city proper during this month.

The diseases most prevalent in the month of September were remittent and congestive fevers; there were also a few cases of yellow fever, traceable, however, to evident and palpable invitation in different parts of the city; five or six cases resulted in death. Much the greater number of cases of this disease were brought from or through New Orleans.

During the month of October, diseases were of much the same character, as during the previous month. Now and then, a case of a typhoid character was brought to our notice. Intermittents were rather more frequent, with increased number of Icteric cases, accompanied with excessive debility, palpitations, pain, and tenderness in the sight.—Hypochondriac region and cough dry and exceedingly annoying during the day, and ceasing entirely, during the night.

Bilious remittents of high action, were not observed during this month, and a very few cases of other grades of this type.

During November there was a large accession to the population of our city, and a corresponding increase in amount of disease, especially light cases of intermittent fever, which, with diarrhæas, choleras, many cases of pneumonia and pleurisy, and a few cases of painter's and bilious colic, constituted the leading features of disease during this month.

Your Committee having received their commission from the President after the annual meeting of the Association, in March last, are enabled to extend their observations over only a portion of the year, from March to December. This period includes that part of the year which, being most productive of disease, will afford almost as much interest to the Association as if it had extended through the whole year. For the purpose of making their Report more valuable for a future reference, they offer you an accurate and detailed account of the weather and mortality, for every day during this period, in the papers appended, numbered 1 and 2.

By comparing the temperature, dryness and moisture, winds, &c., with the accounts of the diseases and deaths for each day and month, your readers may draw their own inferences, and corroborate their own theories, on the diseases of our location.

The imperfections of the tables arises from several causes; the first of which is, defective laws in regard to the duties of the sexton, in requiring a strict examination and certificate of a competent physician, in each case, before interment; to which subject your

committee beg leave to call your attention, as a matter eminently requiring legislative enactment.

Another source of error, in the list of interments in our city, published weekly during the year, in our papers, as well as contained in the tables which we here present, arises from the fact that our grave yards are the only ones in the county, and receive contributions from a permanent population of about 30,000, exclusive of those brought from across the bay, steamboats, from New Orleans, the river, the adjoining counties of Baldwin, Pascagoula, &c. It should also be known to you, that being free from the ravages of Cholera and Yellow Fever, which, during the period above named, existed in such fearful form in New Orleans; our summer population, transitory to, and in, Mobile, was much enhanced. The dead from all these sources have been, not only during the last summer, but for fifteen years before, deposited in our cemeteries and grave yards, and published, without distinction, as of our own citizens.

This error has operated very injuriously to the reputation of our city, and with manifest injustice; for instance, with a reputed population of 10,000, during the ravages of our summer and autumnal fevers, the burials here, in the estimation of all persons at a distance, a high ratio for that number, when the population of three times that number contributed their quota without distinction or notice.

Very respectfully submitted, by

RICHARD LEE FEARN, M. D.,

Chairman of Committee.

P. S.—It is just to state, that the Chairman, being unable to obtain the aid and sanction to the above Report, from the members of the Committee approved by the Association, is alone responsible for its errors and imperfections.

RICHARD LEE FEARN, M. D.

TABLE OF DISEASES,

TABLE OF DISEASES,	March.	April.	May.	June.	July.	August.	September.	October.	November.	Total.
Pneumonia,	2	1	1	1	2	1		1	5	14
Unknown,	14	20	11	6	4	10	11	17	17	110
Teething,	1	1	3	2	2	3		1	1	14
Inflammation Brain,	6	1	3	4	5			4		23
Still Born,	4	1	3	2	7	5	5	4	7	38
Consumption,	3	4	9	2	5	4	5	4	9	45
Fever, Scarlet	7	4	4	2	1	1				19
“ Typhus	1	5							1	7
Inflammation Bowels,	2	2	4	5	5	1	2	2	1	24
Casualty,	3		1	4		2			1	11
Cholera,	36	17	5	4			1	1		64
Exposure,	1									1
Old Age	1	2		1	1	1	2	2		10
Hydrocephalus	1								2	3
Dropsy,	2		1	5	1	5	1	2	2	19
Pleurisy,	1									1
Tetanus,	2	1	1	1		1	1	1	1	9
Drowned,	3	2	3	2	2	3	3	1	1	20
Violence	1								1	3
Diarrhœa,	1		2	3	2	1		1	2	12
Paralysis	2					1	1		1	5
Intemperance	1	1		1	1	4		3	2	13
Apoplexy,	1			2	1				1	5
Fever, Bilious,		1				3		2	1	7
Cancer,		1						1	1	3
Cholera Infantum,		1	1	1	1		1			5
Mania a Potu,		1		1				2	3	7
Worms,		1			1	2	1	1		6
Asphyxia,		1								1
Dysentery,		1	4	1		2	3	5		16
Debility		1	1	1	1	1	2	3		10
Erysipelas,		1								1
Gastritis,			1						1	2
Convulsions,			2	1		7	4	6	3	23
Abortion,			1						1	1
Hydrothorax			1							2
Fever, Congestive			1							1
Trachitis,			1	1		1		1		4
Ulcer of leg,			1							1
Cholera Morbus,				1						1
Marasmus,				1	1					2
Puerperal Convulsions,					1			1		2
Fever, Yellow					1	2	2	6	9	20
Spinal Meningitis					2					2
Hernia,					1					1
Coup de Soleil,						1				1
Epilepsy,						1				1
Fever, Congestive						1	7	2	1	11
Pertussis,						1				1

TABLE CONTINUED.

TABLE OF DISEASES.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Bilious Cholic,.....										1
Childbed.....						1				1
Abcess of Liver,.....							1		1	2
Rheumatism,.....								2		2
Gangrene,.....							1			1
Injury.....								1		1
Purpura,.....								1		1
Hypertrophy of Heart,.....									2	2
Jaundice,.....									2	2
Laryngitis.....									1	1
	96	71	65	56	48	67	54	77	82	616

TABLE of temperature, weather and prevailing winds in the city of Mobile, from 1st May to 1st November, 1849.

MAY.

Highest thermometrical grade at	- - -	9 A. M., 81°	Lowest, 68°
" " "	" " - -	3 P. M., 84°	" 74°
" " "	" " - -	9 P. M., 81°	" 72°

Average highest 82°, lowest 71½°.

South wind, - - -	20 days.	Fair, - - -	19 days.
North " - - -	8 "	Cloudy, - - -	4 "
North West, - - -	2 "	Showery, - - -	6 "
West, - - -	1 "	Rain, - - -	2 "

JUNE.

Highest thermometrical grade at	- - -	9 A. M., 85°	Lowest, 78°
" " "	" " - -	3 P. M., 90°	" 78°
" " "	" " - -	9 P. M., 85°	" 78°

Average highest, 86½°, lowest, 78°.

South winds, - - -	25 days.	Fair days, - - -	12 days
North " - - -	1 "	Cloudy, - - -	3 "
South-west, - - -	2 "	Showery, - - -	8 "
South-east, - - -	2 "	Rainy, - - -	7 "

JULY.

Highest thermometrical grade at	- - -	9 A. M., 85°	Lowest, 74°
" " "	" " - -	3 P. M., 87°	" 78°
" " "	" " - -	9 P. M., 83°	" 78°

Average highest 85°, lowest, 76½°.

South Winds, - - -	20 days.	Fair days, - - -	9 days.
North " - - -	1 "	Cloudy, - - -	1 "
South-West, - - -	5 "	Showery, - - -	7 "

South-East, - - -	3	"	Rain, - - - - - 3 days.
North-East, - - -	1	"	
West, - - - - -	1	"	

AUGUST.

Highest thermometrical grade at - -	9 A. M., 86 °	Lowest, 80 °
" " " " " - -	3 P. M., 90½ °	" 81 °
" " " " " - -	9 P. M., 86 °	" 80 °
Average highest 87½ °, lowest 80½ °.		

South winds, - - -	19 days.	Fair days, - - - - - 8 days.
South-East, - - -	5 "	Cloudy, - - - - - 3 "
South-West, - - -	2 "	Showery, - - - - - 19 "
North, - - - - -	2 "	Rainy, - - - - - 1 "
North-West, - - -	1 "	
West, - - - - -	2 "	

SEPTEMBER.

Highest thermometrical grade at - -	9 A. M., 85 °	Lowest, 73 °
" " " " " - -	3 P. M., 90 °	" 78 °
" " " " " - -	9 P. M., 85 °	" 75 °
Average highest, 86½ °, lowest, 75½ °.		

South winds, - - -	10 days.	Fair days, - - - - - 20
South-east, - - -	1 "	Cloudy " - - - - - 3
North, - - - - -	17 "	Showery, - - - - - 4
North-east, - - -	2 "	Rainy, - - - - - 3

OCTOBER

Highest thermometrical grade at - -	9 A. M., 83 °	Lowest, 61 °
" " " " " - -	3 P. M., 85 °	" 64 °
" " " " " - -	9 P. M., 82 °	" 62 °
Average highest, 83½ °, lowest, 65½ °.		

South winds, - - -	10 days.	Fair days, - - - - - 22
South-West, - - -	2 "	Cloudy - - - - - 0
North, - - - - -	17 "	Showery, - - - - - 1
North-east, - - -	1 "	Rainy, - - - - - 8
East, - - - - -	1 "	

RECAPITULATION.

Greatest number of fair days, October, - - - - -	22
Fewest " " " " " August, - - - - -	8
Greatest number of rainy days, July, - - - - -	13
Fewest " " " " " August, - - - - -	1

Greatest number of days, south winds, 25 in June.

Fewest " " " " " " 10 in October and November.

Greatest number of days, north winds, September and October each, 17.

Fewest " " " " " June and July each, - 1

Part Second.

REVIEWS AND NOTICES OF NEW WORKS.

I.—*ELECTRICITY as a cause of Cholera, or other Epidemics, and the relation of Galvanism to the action of remedies.* By SIR JAMES MURRAY, M. D., T. C. D. and Ed., &c.; Dublin, 1849.

This small volume is announced as the first part of the Author's remarks on Electricity as a cause of Cholera, and Epidemics generally. It consists of 119 pages, and is divided into nine sections.

We may well concede to the author ingenuity, logic and learning.—He says the original notes from which this epitome was condensed, were collected during a period of forty years. We cannot doubt this, yet he may have no claim to originality, as regards the time of publication. In this respect, he has been anticipated, many years ago, by Mackintosh, who, in his Electrical theory of the universe, and in the chapter entitled the circuit of motion, observes, p. 79: "We propose to show that the vital energy is to be ascribed to galvanic action."

Our author ascribes Cholera and all other epidemics to electricity or galvanism, which produces disease, by exalting or diminishing vitality. So far, he only coincides with Mackintosh.

To give the reader a distinct idea of the peculiar views advocated by the author, we will quote his own words.

Having attended the lectures of Dalton, in 1806-7, at Edinburg, on the atomic theory, he observes:

"From that time, the author of these notes, endeavored to apply the rule of definite proportions to the qualities of living atoms, as well as to the quantities of organic particles. He sought to make that scale a continual auxiliary in unravelling many intricacies of anomalous modifications, which otherwise remained almost inexplicable. This comparison was of advantage afterwards, when enumerating the number of atoms of two or more simple bodies entering into a compound substance, and when the writer was calculating the amount or extent of *atomical*

inherent quality, or exact proportions of heat or electricity, naturally belonging to such living atoms in a state of health. He also tried to compute how great the transition from a healthy state, by a certain rising or falling in the scale of true atomical proportions, which ought to prevail in sane conditions of the molecules of matter. *The ascending or descending gradations of this scale, is the principal doctrine here attempted to be submitted for further enquiry and elucidation."* And again, "Neither of these philosophers, however, (Dalton & Higgins,) applied the "*atomic theory*" to explain the *causes* of unhealthy derangement of living particles, or their healthy reunion by the natural galvanic influence of electrical remedies."

Although the author speaks of *living* atoms, his vitality is evidently a compound of electricity or galvanism upon the principles of the atomic theory or doctrine of definite proportions. We shall allude to this again, before we conclude.

We admit the powerful, though inexplicable agency of electricity, on the human system, enabling us at one time to resist disease, and at another, predisposing us to, or modifying, the same; but electricity is neither vitality nor chemical action, though it no doubt is one amongst the many agencies or conditions on which both depend.

According to the writer, the atomic combinations of electricity and animal matter may be constantly fluctuating, producing every variety of disease; but the atomic theory of Dalton is characterized by enduring certainty and mathematical precision. He, however, ingeniously observes, "*that definite disturbances of natural electricity, occasion definite proportions of epidemic diseases,*" and thus endeavors to establish some analogy between this imaginary connection of cause and effect, with the atomic theory which he has pressed into the service of Hygiene and Pathology.

In another place he remarks, "that as all living bodies are composed of indivisible atoms, particles, or molecules, endowed with an inherent quantity of galvanism proper and peculiar to such bodies, and as every particle of the primitive or ultimate elements composing each body has, also, its own distinct and definite portion or quantum of electricity attached to itself, and surrounding every molecule like a spirit or ethereal film, so, every undue or untoward addition to, or subtraction from, such naturally defined proportions, ordained to each atom, or congeries of atoms, must produce some variation in their relative feelings, functions, health, or organization, according to the ratio of every increment or decrement above or below the natural standard, limited by the law of definite proportions."

We presume that the author means, that all these changes of which he speaks are regulated by the law of multiples, with such variations or modifications as we see in Wollaston's tables of chemical equivalents. We should like to know how it has been ascertained that the atoms of living bodies are indivisible. This is all very wonderful, if true; but we leave it to our readers to decide for themselves.

In the application of this theory to epidemics, the importance of disconnecting a dwelling with the earth by the intervention of some non-

conductor, is earnestly recommended, since the author considers the human body as a conductor between the air and the earth. He appears, however, to forget that if the communication with the earth is thus cut off, the inmates of the house, absorbing constantly electrical impulses, must, when electricity abounds in the atmosphere, become most inconveniently charged, resembling, in some respects, Leyden jars. To us, this appears to be the very best means of disturbing the desired equilibrium. There is a general regularity in natural laws, a constant tendency to equilibrium; and it is idle for a man to attempt to correct the occasional variations which occur in the great laboratory of nature. But the author's reasoning above is incompatible with what he subsequently frankly admits, "that other injuries and disorders are inflicted by *overplus* electricity, or by either of its elements. The gradation of such baneful action, when in untoward quantity, is proportioned to its excess above the due atomical equivalent of a part or of the entire body."

Of what elements is electricity composed? We regret that we are not enlightened on this subject by the ingenious author. How much more simple is the idea of greater or less impulses, motion in a certain term of matter, modifying polarizations, which result in the phenomena of electricity, galvanism, and magnetism.

The Doctor has repudiated the doctrine of marsh miasm as a cause of disease, since 1848, and he considers that fens, marshes, sewers, drains, cess-pools, mud banks, etc., are the *carriers* of the cause, but not the *creators* of pestilential and epidemic diseases. And, in another place, he remarks, that instead of receiving such a deleterious agent into the body to originate pestilence, it appears more certain that bodies lose or give out some of their own qualities of sanitary influence.

All other causes of remittent and intermittent fevers and epidemics are rejected as being obscure and unsupported by any proof. The electrical theory accounts for all, in the Doctor's opinion. To us, it appears much more abstruse and incomprehensible than the doctrine of the animalcular cause of disease, which is abundantly supported by facts, and as much so as that of marsh miasm.

In fact, this electrical doctrine of disease, as inculcated by the author, is unmitigated materialism. It denies vitality in the sense in which the word is generally understood by physiologists; for, although he speaks of living atoms, the life is purely the result of chemical action, determined by the combination, in definite proportions, of atoms of electricity with atoms of animal matter. Can he offer any proof of this? Does he attempt anything like demonstration? We see nothing but hypothesis and affirmation. All the facts quoted only tend to show the importance of electrical impulses in the natural world. As probable a theory might be made from actinic chemistry; for light, with a few exceptions, is as essential to animal and vegetable life as electricity or galvanism.

Our author's ideas of electricity, galvanism, and heat are, we think, behind the age, and as fanciful as Blair's theory of matter.

During the progress of the various fermentations, the acetic, vinous, and putrefactive, insects unseen and unknown, except under such a

condition of things, swarm from the bung hole of the barrel in which the fermentation is in progress. There are those we see with the natural eye; there are probably others that require the microscope to be discerned. Liebig once thought that these forms of animal life were the result of chemical action; but his better judgment prevailed when he came to the conclusion that the *heat* accompanying fermentation ushered into existence pre-existing germs of animal matter.

The learned author says, "that from twenty years' practical experience in a meteoric and marshy district, I have concluded that as electricity, *in all probability, is heat*, (italic by H.,) or the active cause of heat, its laws hold similar relations to those of caloric." It certainly follows that if there is a strong probability of caloric and electricity being one and the same thing, no other conclusion is left but that the laws and relations of the one belong equally to the other. But, if these are identical, then caloric must be an entity if electricity is one. We believe that all our readers will admit that heat is nothing more than the effect of intense molecular action, produced in a variety of ways—by the impulses of light from the sun acting on the molecular matter surrounding the earth, by mechanical friction, or hammering, or by the chemical action going on in all kinds of combustion, whether in the candle, the lamp, the gas light or the fire place.

We offer one more specimen of the author's lively imagination. "*I have always thought that general terrestrial or atmospheric disturbance of electrical equivalents, acts like a mordant on a web of silk or of damask; the mordant may remain clear, transparent and unobserved, until it becomes imbued with some coloring matter, when instantly the dye is displayed and fastened in the tissue or fabric. So, in like manner, the earth, the air, and the waters may be affected by degrees of unequal galvanism which may pass away unnoticed, until in some unfortunate situation, human filth, or human folly, human want, human weakness, or municipal wickedness, stain certain spots or places and fix the deadly dye, which may merge from red or scarlet, to yellow fever, green sickness, blue cholera, or black vomit.*"

We cannot commend the foregoing passage. It is misty, dreamy transcendentalism; the attempted analogy is feeble and obscure, and to say the most of it, it is a fitful and fanciful hypothesis. We recommend to the author a candid and impartial reconsideration of the experiments of Moscati and Boussingault instituted in Italy among the rice grounds of Tuscany, and subsequently carried on in South America; also the curious but most satisfactory experiments of Professor Riddell in the pest house of the city of Cincinnati, where the worst form of small pox was raging; to the discovery of numerous varieties of microscopic animalcules by Ehrenberg during the prevalence of the cholera in Berlin, which have been sustained by the observations of Dr. Brittan, Lecturer on Anatomy and Physiology in the Bristol Medical School. And we would further inform the doctor that the same fact is now verified in this city; microscopic animalcules of various and singular forms having been, and being daily detected in great numbers in the evacuations of cholera patients in the Charity Hospital.

Believing that this work will prove generally interesting to the medical profession, we recommend it to their consideration and dispassionate judgment.

W. P. H.

P. S.—To Dr. Farrel of this city, we are indebted for a copy of Sir James' work.—ED.

II.—*A Theoretical and Practical Treatise on Midwifery, including the Diseases of Pregnancy and Parturition.* By P. CAZEAUX, Adjunct Professor in the Faculty of Medicine of Paris, etc., etc. (Adopted by the Royal Council of Public Instruction.) Translated from the second French edition, by ROBERT P. THOMAS, M. D., of Philadelphia. With one hundred and seventeen illustrations. Philadelphia, Lindsay & Blakiston, 1850.

When an author who may be a stranger presents himself before the profession in the attitude of a teacher, a proper respect for our readers requires us to inform them something of the character and standing of the writer. P. Cazeaux, the author of the above treatise, was for a number of years, physician accoucheur to one of the largest lying hospitals of Paris, where he enjoyed the amplest opportunities for ascertaining the value of the doctrines put forth by obstetrical writers; and where all mere speculation was made to give way to the severe test of truth and experiment. Monsieur C. was besides, a long time *chef de clinique* to Prof. Dubois, and a pupil of the distinguished Prof. Moreau. Besides, he has been a lecturer for the last eight or ten years on midwifery, in the schools of Paris, in the capacity of adjunct professor. We think we have said enough to satisfy the reader that our author is not a quack, but a student and a practical physician.

M. Cazeaux tells us he has adopted the views, long since enunciated by Prof. Nægèle, Stoltz and P. Dubois, but which have not been heretofore distinctly stated in our best works on obstetrics. The classification of labor in this work admits of but *five* distinct presentations; that of the vertex; of the face; of the breach; and of the right and left lateral planes. These may be again subsided into about thirty positions in all; whereas Baudelocque makes one hundred and two. The practical experience of Prof. Cazeaux has demonstrated the highly important fact, that the unassisted powers of nature are quite sufficient for the expulsion of the child in many cases, which were formerly regarded as demanding the intervention of art.

If the reader be desirous to become better acquainted with our author, we would advise him to look into the work, where he will find all the latest views, as now taught and generally recognized, promulgated in the science of obstetrics.

In the general division of his subjects, M. Cazeaux does not deviate materially from his predecessors; the "*first part*" treats of the *organs of the female concerned in generation*; the "*second*" of *generation*; the "*third*" of *labor in general*; the "*fourth*" of *dystocia*; and the "*fifth*" of *the delivery of the after birth*. The above divisions of labor obtain in nearly all of our works on obstetrics, and are therefore not entitled to any consideration at our hands.

We therefore pass over the mechanism of labor and proceed to notice some of the speculation of authors on the nature and origin of the *corpus luteum*. For a long time the corpus luteum was regarded in books on medical jurisprudence as an irrefragable proof of previous conception; now, however, it is considered as a sign of previous menstruation; it simply proves that there has been a rupture of an ovarian vesicle, which may result either from pregnancy, menstrual excitement or the venereal orgasm. Having shown the true value of the *corpus luteum* in a medico-legal point of view, we now turn to another subject, perhaps more interesting to the physiologist; speaking of the spermatic fluid, M. C. says:

"The spermatic fluid, a glutinous, consistent, and whitish liquid, secreted by the testicle, is the fecundating principle furnished by the male. This fluid is heavier than water, and forms with it an emulsion when the two are shook up together; it has a peculiar odor, which has been justly compared to that emitted by bone-filings, or the flower of the chesnut tree; but, according to Wagner, this odor arises rather from the secretory juices with which it is mixed; because the sperm itself, in a state of purity, does not appear to possess any particular smell.

"Chemical analysis demonstrates the presence of albumen, the salts of phosphoric and chlorohydric acids, and a peculiar animal substance called *spermatine*.

"When examined under the microscope, at a magnifying power of three or four hundred diameters, the spermatic fluid exhibits: 1. A great number of little bodies, lying quite close to each other, and which are still moving with more or less activity, if the fluid has been taken from a recently killed animal: these little bodies have been designated as the *spermatic animalcules*, or the *spermatozoa*. 2. Of certain little granular globules, which are sometimes very few in number, at others more numerous; but always less so, however, than the animalcules. Wagner calls them the *spermatic granules*. 3. These two leading elements of the sperm float about in a small quantity of a clear, transparent, and perfectly homogeneous liquid—the *spermatic liquid*. At the time of the ejaculation, this liquid is mixed with a variable quantity of the fluids secreted by the prostate gland and the glands of Cowper, which latter evidently serve merely to lubricate the parts, to render the sperm more fluid, and consequently its expulsion more easy.

"The spermatie animalcules attraet particular attention by their varied form, their vital properties and development; and further, they are met with in all animals capable of reproduction.

"In man they are very small, scarcely surpassing the eightieth or the hundreth of a line in diameter. The body is small, oval, somewhat flattened like an almond, and transparent, having a diameter equal to the three or four hundredth part of a millimetre (.001 of a inch.) The tail is filiform, thicker at its origin than at any other part, and is large enough to present clearly its double outline, but towards the extremity it becomes so fine that it cannot be traced, even by means of the highest magnifying power, whence it may be possible that its delicate extremity is still further elongated, and that the spermatozoa may be much longer than they appear.

"It is impossible, says Wagner, (from whose able works I extract this paragraph,) to decide whether the spermatie animalcules have an animal organization, that is, true animals with an independent life, or not; and all that is either known, or plausibly supposed, on this point, may be reduced to a few obscure indications, that are wholly insufficient to establish any positive opinion.

"The movements by which they are agitated prove nothing, because it is exceedingly difficult to ascertain whether they are voluntary or not. Again, the duration of the movements also varies in the different classes of animals; in the mammiferæ, they have even been observed for twenty-four hours after death.

"The spermatozoa do not appear in the human species before the approach of puberty: at this period, the testicles receive a large quantity of blood, and swell up, the parieties of the seminiferous tubes become thicker, their capacity increases, and they are filled with granules; and then some cysts or cells, furnished with globules, begin to form, and finally the spermatozoa appear in these cells. They are always found in the testicles of men of sixty or seventy years of age. Often, indeed, at this age, there are more of them in the vas deferens, though, in general, the vesiculæ siminales seem to contain them also.

"The germ furnished by the female is evidently existent in the ovary at the marriageable period, and this germ is the ovule.

"2. It is unnecessary in our day to prove that an absolute contact of the semen of the male with the ovule of the female is indispensable to fecundation, for innumerable experiments upon living animals, and numerous facts observed in the human species, have long since demonstrated that, whenever any obstacle prevents the approach of these two elements, a conception cannot take place. But at what point does this contact occur? Already had the pre-existence of the ovule in the ovary, the occasional existence of ovarian and abdominal pregnancies, the experiments of Nuck and Haighton, which had rendered fecundation impossible by ligating the Fallopian tubes, tended towards the conclusion that it occurred in the ovary; but this fact was not materially demonstrated, and it still needed the definite proof of finding the spermatozoa on the organ itself. At present, there cannot be a further doubt on this point, for Bisehoff has been fortunate enough to see them there. 'I

had often seen,' says he, 'living spermatozoa in movement in the vagina, the womb, and the Fallopian tubes of bitches, but, on the 22d of June, 1838, I had the good fortune to perceive one on the ovary itself of a young bitch, in heat for the first time; she was covered on the 21st at seven o'clock in the evening, and again the following day at two o'clock, P. M., and at the expiration of half an hour, that is, twenty hours after the first copulation, I killed her, and found some living spermatozoa, endowed with very active movements, not only in the vagina, the entire womb and tubes, but even between the fringes of the latter in the peritoneal pouch that surrounds the ovary, and on the surface of this organ itself.' And since that period, Wagner and Barry have made the same observations. Now, such results evidently prove that fecundation sometimes takes place in the ovary; but are we thence to conclude, that it is only possible in that organ alone?

"For if a spontaneous ovulation be now an incontestible fact, may it not be supposed that the ovule, after having left the ovary, can encounter the spermatic fluid and become fecundated, whether it be in the Fallopian tube, or even in the uterine cavity? And unless we admit (what analogy renders improbable) that the ovule, once out of the ovarian vesicle, is not capable of fecundation, we are constrained to believe that the latter may be accomplished at whatsoever part of the genital organs the contact takes place.

"But the question arises, how does the fluid ejaculated by the male get as far as the ovaria? We answer that, in the great majority of cases, it is evident that the sperm, having first reached the uterus, upon the neck of which it was thrown by the membrum virile, travels through the tube until it arrives there. This course is certainly due—1st, to the movements proper of the womb and the tubes; for in the latter, a rapid retraction is observed, following the direction from the vagina towards the ovary, which, of course, is calculated to aid in causing the sperm to travel it; and 2d, to the movements proper of the spermatozoa; which thus of themselves facilitate their own progression. But in certain rare cases, there exists another way of communication between the vagina and the ovary; thus M. de Blainville asserts, that if the vagina of a young sow be examined, a particular conduit may easily be found, which, having its exterior orifices on each side of the meatus urinarius, runs in the thickness of the muscular fibres of the vagina, becomes retracted at the uterine neck, but does not the less continue through the substance of the womb; at first, this canal follows the body of the uterus, then abandons it, and runs in the substance of the broad ligament, parallel to the corresponding angle. But neither M. de Blainville, nor M. Gartner, of Copenhagen, (who merely repeated the experiments of the former), have been able to find anything similar to this in the human female.

"Analogy, however, renders their existence probable in the human species; and this probability acquires additional strength from the recollection of the facts communicated by M. Baudelocque to the Academy of Medicine in 1826, as also those cited by Madame Boivin. Finally, Mauriceau reports that Dulaurens has several times remarked,

that the tube having arrived at the angle of the womb, divides into two canals—one, the larger and shorter, is inserted in the fundus uteri, and the other, being somewhat longer, terminates at the neck, near its internal orifice. It is possible the canal may, in such a case, constitute an additional way for the sperm, different from the ordinary passage.

“3. This first point being once established, the question naturally arises, what was the influence exercised by the sperm upon the ovule of the female during the contact? Now, numerous experiments clearly prove that the sperm owes its fecundating properties to the presence of the spermatie animalcules; and that, whenever it is deprived of these, it immediately becomes unsuited to its proper function. But, unfortunately, it is far more difficult to ascertain the part acted by the spermatozoa, though there have been three hypotheses started in regard to that subject, deserving our consideration; for example:—

“The most ancient one is, that during fecundation they penetrate immediately to the ovule, and are there developed as a miniature embryo, or, at least, they constitute the central nervous system of the future being. This old opinion has been recently sustained by Barry, who asserts that the ovule of rabbits, when at maturity, is furnished, both before and during fecundation, with a fissure or opening in the vitelline membrane, and once he was even fortunate enough to see a spermatozoa penetrating this fissure.

“Again, according to certain authors, the fecundating power does not belong to the spermatozoa, but to the seminal liquid interposed between them. In this hypothesis the animalcules are the *transporters* of this fluid and the object of their movements is to conduct it to the ovule.

“Lastly, in the opinion of Bory-Saint-Vincent, Valentin, and Bisehoff, the spermatozoa are solely destined to maintain the chemical composition of the sperm by their active motions. They suppose that the spermatic fluid is a substance endowed with a chemical sensibility of such a character that, like the blood, it can only preserve the fecundating power while it remains in motion; whence these active elements are enclosed in it, whose presence is indispensable—elements, the movements of which are never more active than just at the moment the semen leaves the place of its secretion, and which appear to exercise the most favorable influence for the maintenance of its composition.

“These are the summary of the most recent opinions; and we merely present them as they are, without any commentaries, not desiring to decide in so delicate a matter. Besides, whichever one may be adopted, the mind remains unsatisfied; for it must be acknowledged as there is still a mystery that all the most ingenious hypotheses have not been enabled to clear up, and which will probably escape all our researches.

“The Graafian vesicles become very vascular and swell up, both from the hypertrophy of their walls and the augmentation of liquid contained in their interior, at the rutting season of animals, and during the flow of the menses in females. This condition of things results in so great a development after a fruitful coition, and the action of the

spermatic liquid on the vesicles, that the latter ultimately give way at their apex on the free surface of the ovary, and thus permit the ovule to escape, together with a portion of the granular matter which surrounded it; at the same time, the Fallopian tubes, which had participated in the state of turgescence along with all the other genital organs, retain their free extremity in contact with the ovary, and the ovule, having escaped from the vesicle, immediately engages in their canal; being pressed onwards by the peristaltic contractions of the tube, it advances step by step through this duct, and finally arrives in the uterine cavity, where its development unceasingly progresses until the regular term of pregnancy. (Vide the chapter on *Ovology*.)

"It is extremely difficult, not to say impossible, to fix a precise period at which the fecundated ovule reaches the cavity of the womb. In animals, we may ascertain without difficulty the time of fecundation; but this, of course, is generally impossible in the human species, and this obstacle renders nearly all our observations uncertain and incomplete. Further, very numerous researches have clearly proved that the ovule in mammiferæ does not always arrive at the same moment in the matrix, and it is exceedingly probable that the same variations exist in the human female.

"In the present records of our science, there is no one conclusive fact that proves the ovule to have ever been seen in the womb of a woman prior to the tenth or twelfth day after her conception.*

"After the exit of the ovule, the Graafian vesicle soon retracts upon itself, and thus contributes to the formation of the corpus luteum, before spoken of. (page 69.)

"We shall hereafter describe the modifications which the ovule undergoes during its passage through the tube, and after its arrival in the uterus.

"Conception is an act that takes place unconsciously, and altogether involuntarily; although some females, more especially those who have had children, imagine that they can distinguish a prolific connection from others. They say a much more voluptuous sensation is then experienced, a spasm much better marked; and I have met with too many females, who acknowledged having made this observation, to believe there is no truth in the assertion.

"The same ignorance that prevails as to the cause of fecundation, likewise exists with regard to those opposing its accomplishment. It is wholly impossible to explain why some women are barren, although

* Baer examined a woman, who committed suicide eight days after conception; the caducous membrane had commenced forming, and some vessels, coming from the mucous membrane, were penetrating it, but he could not detect any trace of the ovule in the uterus. (*British and Foreign Med. Review*, Jan., 1836, p. 328.) The same occurred in the case cited by Weber (*Disquisitio anatomica uteri et ovariorum puellæ septimo a conceptione die defuncta instituta*.) Doctor Pockels speaks, it is true, of an ovum of eight days, found in the uterus, and in which the *fœtus* could easily be distinguished; but the description furnished by him evidently applies to a more aged product. (Allen Thompson, in the *Edinburgh Med. and Surg. Journal*, vol. lii., p. 122.) Ovules of eleven days were the youngest observed by M. Velpeau.

well formed—why, in a considerable number of cases, married females have not had children during their first marriage, whereas, they subsequently become eniente, when even it has been observed that the first husband had children by a former bed.

“The most proper period for fecundation appears to be that immediately following the flow of the menses; thus M. Raciborsky has ascertained that the conception took place a little before or after their appearance, in fifteen females, who could designate precisely the time of the sexual approach. It is indeed evident, that everything seems admirably prepared at this period for the reproduction of the species; but, however, I am far from concluding, as M. Raciborsky has done, that the aptitude for fecundation in the human race is limited to a few days, either preceeding or following the menstrual terms; because I believe that the excitement produced by coition may communicate itself to the ovarian vesicles, and cause modifications in them, altogether similar to those experienced in the mensual evolution; and it would be very difficult to affirm that there is any one period of the year more favorable than others to this function in the human species.

“I shall not stop to refute the opinion of those who suppose the sexes can be created at pleasure; although I do not believe that the physical constitution of the husband or wife is wholly devoid of any influence over the sex of the child; for the learned observations of M. Girou appear to me to have proved, in animals, at least, that, in proportion as the male is stronger and more vigorous than the female, the greater are the chances of a male offspring, and *vice versa*; and the observations that I have been able to make on the human family since reading the statistical results of M. Girou, have generally confirmed their conclusions.

“I here bring a termination to the article on fecundation, in which I have restricted myself (as the reader will see) to a very brief exposition of the opinions generally admitted on this point of physiology; but the size, and more especially the object of this work, compel me to decline entering more amply into details.”

The foregoing is an interesting account of the mode in which fecundation is brought about, and although not perfectly satisfactory, yet it will suffice to throw some light upon this heretofore obscure question.

Without following up our author verbatim, we may be permitted to state that his work is fully up to the knowledge of the day on the subject of obstetrics, and taking the book as a whole, it will not suffer by comparison with any of a similar cast on the same subject. The plates are well executed, and will assist the reader materially in understanding the text.

As obstetrics (is) a demonstrable science, (to some extent,) we forbear entering into specialties; as so much has already been said on this subject by preceeding authors. How comes it that so many have recently written on this branch of medicine, we are at a loss to determine; for surely nothing new has been elicited; nor has the mechanism of labor been materially modified! If labor be effected according to the laws of physiology, it follows that we must have been either ignorant of those laws in the first instance, or those laws must have expe-

rienced some change in the progress of time. To admit the first, is an imputation upon our ignorance; and to advocate the second proposition would be an outrage upon nature? We therefore conclude that neither is strictly true; and hence we argue that there existed no pressing necessity for a new work on the science of obstetrics.

We have always thought nature competent for her own great work of re-production; and therefore deem all refinement on this subject as superfluous and hurtful.

M. Cazeaux has brought obstetrical science up to the present day, and the reader will therefore find the multifarious subjects of the art fully discussed and carefully examined.

We cannot do less than commend his book to the careful perusal of the student and practitioner, assuring both that they will be amply rewarded for a careful study of the work. To Mr. White, 53 Canal St., we are indebted for a neat copy of the work.

III.—INTRODUCTORY LECTURES.—*Three lectures, preliminary to a course on the Principles and Practice of Surgery.* By WILLIAM GIBSON, M. D., Professor of Surgery, in Pennsylvania University, 1849-50.

These lectures are the fruits of professor G.'s rambles in Europe, in 1847. They contain a graphic delineation of some of the most famous spots and distinguished medical men in Germany. They are written in an easy, flowing, and colloquial style, so peculiar to the able Professor, and, no doubt, gave both edification and instruction to the medical class before which they were delivered. Our author set out from Brussels for the frontiers of Prussia, and paid a hurried visit to almost every town of any note in that empire. We pass over Dr. G.'s description of the works of art, of churches, etc., and notice only those portions of his lectures which furnish us some account of the personal appearance and habits of distinguished medical men and authors.

At Heidelberg, so famous over Europe for her University, and the reputation of her professors, Dr. G. had the good fortune to meet with, and make the acquaintance of Professor Tiedeman.

As the reader may be desirous to know something of the personal appearance of Prof. T., whose works on medical science are familiar to us all, we copy Dr. G.'s description of him :

Professor Tiedemann, who was just sixty-six, as he informed me, at the time of my visit, is quite a young man, and really looks and talks and walks like a man of fifty; is truly a very fine looking man, full six feet high, straight as an arrow, thin, but muscular and admirably proportioned, has a large head, expanded forehead, a countenance so benevolent and winning, an eye so blue and full of sympathy, and manners so bland and attractive, as to win the admiration of all who approach him. "Come," said he, after talking in his sanctum a full hour, on all subjects connected with medicine and surgery, and on American matters, "go along with me to my museum, and there see what I have been doing for the last forty-two years." The museum, although belonging to the University of Heidelberg, is not under its roof, but contained in an old building formerly a Dominican convent, at some distance, where the anatomical lectures are delivered. There are four rooms, each from thirty to sixty feet long, filled, from bottom to top, with all kinds of skeletons, from the elephant to the mouse, and with preparations dry and wet of every description, numbering upwards of five thousand specimens—the work of Tiedemann, his prosectors, pupils, and persons who have contributed to the collection. Here are preserved the original preparations referred to by Professor *Tiedemann* in his different works—the anatomy of the radiata, the development of the brain in the fœtus, the heart of fishes, the arteries of the human body, the nerves of the uterus, the brain of mammalia, the Bartholinian glands, the oblique uterus, &c. In the department of human anatomy, the preparations are arranged in ten classes. The first contains the organs of locomotion; the second all the organs concerned in the assimilation of the food; the third the organs of respiration; the fourth the organs of the circulation of the blood—the heart, the arteries and the veins; the fifth the lymphatic system, with the spleen, the thyroid and other glands; the sixth the brain and nervous system, with the organs of sense; the seventh the organs of secretion of urine; the eighth the organs of generation and the mammæ; the ninth the gravid uterus, the human egg, the fœtus, and the preparations illustrating the development of all its organs; and the tenth monsters of every description. Most of these preparations are well put up, and those embracing the lymphatic system, brain, nerves, organs of sense, including the injections, are very beautiful and even splendid. Then follow the preparations showing the structures of the human body, when altered by disease, of all systems and organs. This pathological department has been formed by donations from the directors of the hospital, and from many professional gentlemen, who have obligingly furnished contributions. The third great section contains the preparations of animal bodies, of all classes of the animal kingdom. The same mode of subdivision into orders is observed in the arrangement of the system and organs, from the mammalia, birds, reptiles, fishes, crustacea, insects, mollusca, annulata, radiata, and zoophytes.

Professor Gibson had the good fortune to be introduced to *Chelius*, Professor of Surgery, in the Heidelberg University, and author of a voluminous work on this science. On being presented to Chelius, Dr. G. says:

I was struck, immediately, with his gentlemanlike appearance, his dignified bearing, his quiet unpretending demeanour, his slow, calm, gentle mode of questioning his patients, his soothing replies to their anxious interrogatories. I found him rather tall than otherwise, stout, finely proportioned, very upright in figure, with large head, straight small nose, blue expressive eyes, flat features slightly marked with small pox, very neatly and genteelly dressed, and should have taken him, from this last characteristic alone, had I met him, unknown, in the streets, for a finished gentleman, or man of rank. His son Frank, a fine looking youth of twenty-two, very like his father, was made known to me, had just returned from Edinburgh and London, after enjoying for a year or two the

professional advantages of those places, particularly in *St. Bartholomew's* and *George's* hospitals. After conversing for half an hour, *Chelius* invited me to go with him and see his hospital, occupying a high and airy situation on the skirts of the town. It is not very large, nor abundantly supplied with patients, an evidence of the healthfulness of the place; but clean, and well conducted. The operating room is small, though admirably arranged and lighted. There is a very large collection of instruments, ancient and modern, enough, indeed, to fill a room of respectable dimensions, but most of them, as *Chelius* remarked, very complicated and of little use—only proving that in every age, men's minds have been too apt to run astray in searching for difficult and out of the way contrivances, rather than follow the simple dictates of nature and common sense. Several interesting cases were pointed out to me, one in which a vesico-vaginal fistula had been reduced to the size of a hair by repeated applications of lunar caustic; another, where a man, having fallen from a great height, had fractured the bodies of the dorsal vertebræ, without the accident being followed by paralysis, and only with slight derangement of the vesical function; a third, a cancer of the lower lip, in a woman, the first *Chelius* had ever met with, though he had operated upon hundreds in men, and had been induced, consequently, to assert in his lectures that it never occurred in the female, a mistake I was happy, so far as individual experience went, and observation in the practice of others in this country, to correct, though bound, with him, to acknowledge as a rare disease, compared with its frequency in the other sex; fourthly, several cases of successful operation for cataract by *depression*, a mode he prefers to any other; fifthly, two or three amputated stumps by circular incision; sixthly, numerous examples of scrophulous joints—almost as common here as in Belgium among the lower orders, who live chiefly on vegetable food; seventhly, a large tumor on a boy's neck of uncertain character, which *Chelius* was hesitating to operate upon, under the persuasion that it was likely to turn out *Fungus Hæmatodes*, and if so, that no benefit could possibly result; eighthly, a case, in which ether had been tried and the patient rendered so frantic by it as to make it impossible for him to go on with the operation, lest it should terminate in death, cases of which he had known and heard of. After this visit I saw *Chelius* repeatedly, rode with him through the town and adjacent country, received his visits at the *Badicher Hof*, and drew the conclusion from all I saw, that he was deeply read in his profession, modest, unassuming and quiet in his nature, a close observer, prudent and cautious in the extreme, in his practice, entirely free from trickery of every description, honest, truthful, a decided enemy to dashing, unnecessary and hazardous operations, bold and fearless, when the case really demanded such qualities, and more like, in most respects, our late venerated Professor *Physick*, than any individual I had ever met with.

To show how very averse he is to hazardous operations I may mention, that, upon asking him if he had ever attempted to extirpate the thyroid gland, he replied, "never, because I have always considered it improper and unnecessary, from having repeatedly succeeded in removing the largest brouchoceles simply by tying the superior and inferior thyroid arteries, or by making incisions into them; that *Klein* of Stutgard had once operated and continued the dissection after the patient was dead, not knowing that he was dead, or even in danger;" that *Fricke*, of Hamburg, once said to him, "*Chelius*, why don't you extirpate that large thyroid gland in your hospital?" "Because," he answered, "I don't think it proper to do so, but, if you think otherwise, I will allow you to operate, and be your assistant"—when *Fricke* immediately backed out by declining the proposal. "Many surgeons," he continued, "have a *mania* for operations, which is derogatory to the profession, and most unjust and injurious to their patients."

Chelius is now about fifty-five years of age, looks much younger, is said to be a plain, systematic, instructive lecturer, upon whose statements students may place implicit reliance, is no declaimer, never lauds himself, has the reputation of being wealthy, and of receiving, *really* and not fictitiously, large sums from his practice; has patients to visit him from all parts of Europe, has been sent for from England, lives in good but not extravagant style, and is considered, upon the whole, one of the best surgeons Germany contains. From speaking English fluently and correctly, I could understand and appreciate every thing that fell from his lips.

The next distinguished medical man described by Dr. G. is the renowned but youthful *Henley*. Of him he says:

With *Henley*, so well known here and in Europe, by his writings on microscopical anatomy and pathology, I was particularly struck. He is a small, active, well made, muscular man, about thirty-five, with a very bright, scrutinizing, thoughtful face, which seems as if it could look through one in a moment, and find out what stuff he is made of. I was shown into his study, suddenly, by an awkward servant, and took him unawares whilst sitting, after a hard day's work, during which he forgot his meals, over a table, holding in both hands the thigh and leg of a cold chicken, which he was pulling to pieces in fine style, by a set of as strong and white teeth as are commonly found in most men's mouths. He rose half choked, half confounded, threw down the chicken, wiped his greasy mouth and hands with a towel, apologised for the predicament in which I had caught him, by explaining the cause, rattled away on all subjects, asked me a hundred questions, answered them himself, and was as free and jovial and kind, as if he had known me for fifty years. I afterwards found he was a great favorite with his pupils, as much from his talents, free and easy and conciliating manners, as from his decided democratic principles.

From Heidelberg, Professor G. proceeded to *Giessen*, the residence of the world renowned *Leibig*, and thus speaks of him:

Calling upon him half an hour before he commenced his lecture, taking with me a letter of introduction from one of his distinguished and favorite pupils, Professor *Hosford* of Cambridge, Massachusetts, he received me with great kindness, saying, as he glanced at the letter before opening it, "Ah, that handwriting I should know if I were to meet with it in the desert of Arabia;" took me through his laboratory, explaining fluently, and in excellent English, all the chemical manipulations and experiments then going on, gave me several of the products of his recent discoveries, especially specimens of *kreatin*, and *kreatinin* and *lactate* of lime, introduced me to two young Americans, his pupils, of whom he spoke in the highest terms—Mr. *Rosencrantz* of Philadelphia, and *Sommer* of South Carolina,—and concluded by showing me an apparatus with which he had been experimenting with the view of explaining the connection between the skin and the fluids of the body—his theory being that by the perspiration a void is created causing a determination to the surface. The instrument referred to is a small glass tube bent upon itself, containing a small quantity of water, and closed at each end by a membrane. One end is placed in a vial containing oil or some equally heavy liquid, while the other remains exposed to the air. By the evaporation of the water, a partial void is created, the liquid is determined to and through the membrane, and a species of endosmotic action is the consequence. In like manner, by the evaporation of the perspiration from the surface of the body, a partial void is created. In the chemical laboratory, consisting of two or three small rooms, communicating, I found other students all engaged in making experiments for their own or for Professor *Leibig's* lectures. The lecture room, adjoining the laboratory, is quite small, of very common aspect, and not capable of containing, apparently, more than one hundred students. About sixty-five were in attendance, and the room then occupied by them, as the lecture hour

was at hand. During the winter, the usual number of students in the chemical department seldom exceeds one hundred and twenty, but the whole number, including the academical, theological, law, medical, and other departments of the University, sometimes amounts to five or six hundred.

In personal appearance, *Leibig* is quite prepossessing. He is rather tall, probably about five feet eleven, thin and well proportioned, a little stooping or rounded in the shoulders, long in the neck, upon which the head, not very large, is well set and balanced. His features are very expressive, his eyes dark, brilliant, and piercing, his visage sharp and thin, his nose rather long and pointed, slightly elevated and undulating about its centre; the mouth compressed and indicative of great energy and determination. As a lecturer, I found him agreeable, his manner being composed, quiet and steady, his elocution free, perspicuous, and flowing, and his experiments readily and successfully performed. He struck me, too, as a polished gentleman, being well dressed, very neat and clean, not only in his shirt, but exterior habiliments; his face and hands, too, those defective members in most chemists, being smooth, white, and even lady-like. Upon the whole, I was very much pleased with him, and did not wonder that he should win the admiration and respect of his pupils and the public, especially as along with his simple, unpretending demeanor, there is mixed up a full share of dignity and other high qualities. Of his merits, indeed, there can be no question, although there are some, both in Europe and America, inclined to say or believe, that his reputation is on the decline, and that Mulder, of Utrecht, is likely to go beyond him in discovery and improvement. This may be owing to the recent unfortunate difference between them, so that the friends of each have become warm partizans, and accustomed to elevate one at the expense of the other, according to their own particular bias or prejudice. It would be in better taste to say, that both enjoy a very high and deserved reputation. How, indeed, can it be otherwise with *Leibig*, when the town of *Giessen* seems to depend upon him almost for existence, through the immense number of strangers there attracted to see and hear him, many of whom, hardly knowing the meaning of the word chemistry, jump into a cab, drive fifty or a hundred miles full speed, pass a miserable night at the *Rappen*, and, after being almost suffocated with abominable smells, and crawled over by troublesome customers, rush up the next morning to his laboratory, interfere with his time by getting him out and having him trotted, as it were, backwards and forwards, to satisfy their vanity and craving appetite for that sort of distinction, and then leave the place with as much celerity as they came into it."

Bischoff is a colleague of *Leibig*'s, and is described as follows:

Bischoff is a tall, broad-shouldered, fine looking, very muscular, powerful man, about thirty-five, and full six feet high. His features are agreeable and expressive, his eyes large and bluish gray, his hair dark chesnut, abundant, pushed up on one side of his forehead, as if it had been suddenly smoothed and pressed by hot iron; his nose, the most remarkable feature in his face, aquiline to an unwonted degree, and in size tremendous, nevertheless, eminently handsome, from its regularity and fine, full, flowing outline. Like his father-in-law, he does not practice, but confines himself strictly to anatomy and its kindred branches. High as his reputation is, I found him lecturing to seven students, with as much energy as if he had been pouring the contents of his cranium upon seven hundred. In the winter, however, his class amounts to fifty or sixty.

The next point to which Dr. Gibson directed his attention was Berlin, and here he met with *Muller*. Dr. G. says:

"My first visit was to the University, a truly magnificent edifice, its centre receding so as to form three-fourths of a hollow square, enclosed on the sides by extensive wings, which, together with the main building, thus front on the

Linden Avenue, and might easily be mistaken for a gorgeous palace. After ranging through the different suits of rooms occupied by professors and pupils in all the departments of literature and science, I found my way, instinctively, to the museum of human and comparative anatomy, occupying the entire space of one wing, subdivided into six or seven large rooms and corridors, communicating freely with each other, and containing a superb collection of specimens, all beautifully prepared, admirably arranged, and many of them rare and unique. The collection of comparative anatomy, in particular, is very rich—the skeleton of almost every animal, living and extinct, being there found. It so happened, that in turning a corner, and emerging suddenly from behind the skeleton of a huge whale, I came, unexpectedly, upon a well set man, of medium height, black hair, very expressive eyes, agreeable visage, about forty-five, busily engaged in superintending a group of workmen, while they plied their fingers and forceps in arranging and putting together, by rods and wires, the bones of an immense creature, which I thought I recognized as an acquaintance. The gentleman immediately stepped forward as I approached, and accosting me, politely asked if I wished to see him. I gave my name, and in return received that of Professor *Muller*. Having in my pocket a letter of introduction, I handed it to him, and from that time until I left Berlin received the kindest and most marked attention. The skeleton referred to turned out, as I supposed, to be the identical one exhibited by *Kock*, in Philadelphia and other large American towns, some two or three years since, being a specimen of the *Basilosaurus* of Harlan, or of the *Zeuglodon Cetoides* of Owen, having been found by *Kock* in our western country, and afterwards taken to Europe and sold to the museum of Berlin, where I again met with it. According to *Muller*, it is an European animal, minutely described by an old Italian writer, whose work he put into my hand. Harlan's description of the same species of animal he considered perfectly correct. *Muller* does not believe in the existence of the American sea-serpent, and thinks, with Owen, that it is the *squalus maximus*."

The late celebrated *Dieffenbach*, who was the Cooper of Prussia, is thus described by Dr. G.:

"The next object of attraction to me in *Berlin*, was *Dieffenbach*, the celebrated surgeon. I devoted, accordingly, the greater part of the day in attempts to see him, called repeatedly at his house, at first, early in the morning, then at numerous intermediate hours, and finally at night, but without success. He was either not at home, or so engaged with patients as not to be visible. I began almost to despair of accomplishing my purpose, and mentioned the difficulty to *Muller*, whilst walking together in the streets. At the same moment, just in our rear, was distinctly heard the loud rattling of a cab. *Muller*, as if instinctively, immediately turned round and exclaimed, "there he comes at full speed, I thought I knew the sound of his wheels and of his horse's hoofs, now we shall catch him," and immediately sprang forward into the street to interrupt his progress, but in vain, the driver cracked his whip, and the noble gray, evidently a trotter, bent his knees and lifted his legs with increased vigor, whilst his master crouched in a corner with his head barely to be seen above the panel of the door, with a significant nod, and motion of his finger, seemed to say, it is impossible, I am going upon an errand of life and death, and can't and won't be stopped. And, John Gilpin like, away he went, at a furious rate, the carriage hopping ever and anon, from side to side, and the fire flying from his horse's heels like streaks of lightning. "He's a venturesome devil, at any rate," exclaimed *Muller*, "and sooner or later will break his neck. But I am determined you shall see him, if I have to haul him out of bed." Two hours afterwards, I received from him a note, saying, "I have caught the runaway, and made an appointment with him to see you this evening, at seven o'clock. Call upon me at that hour, and we will go together to his house." Upon enter-

ing the hall of his mansion, a magnificent one, a few doors from Linden avenue, and fronting the river Spree, a small, active man, with large head and prominent nose, with both arms and each forefinger protruded upwards, came with a half pacing, half trotting motion directly at us, and exclaimed in broken English, and in sharp, shrill, and lengthened tones, "Ah, Dr. Gibson, I am much pleased to see you; am so sorry it was impossible to stop, but entre, come in, come in." So we followed him into a large drawing room, splendidly furnished, and fitted up in the most tasteful way, when, finding it not easy to express himself as fluently as he wished, he said to the servant, "Go to Madame Dieffenbach, tell her to come here directly, tell her I want her to talk English, that I won't excuse her, she must come." Then he began in the same deliberate, yet quick way, and in the same squeak of voice, which seemed peculiar to him, to apologize for not seeing me when I had so often called, and particularly for not stopping in the street, saying a large artery had been cut, and he was flying to the patient lest he should bleed to death, then complaining that he was almost killed by fatigue, could hardly stand on his legs, and yet the next moment, as Madame Dieffenbach entered, he bounced from the sofa like a bull, flew towards her with arms and fingers up, faced about, and brought her with step as quick as his own directly in front, and most unceremoniously made me known to her, saying, "talk now as much as you like, I want to hear all about you and your country, and France, and England, and wherever you have been; talk on and I will listen." Muller sat as still as a mouse, his temperament belonging to the quiet, sober order, whilst Madame Dieffenbach and myself engaged in full conversation, chiefly in relation to her husband, his hospital, his practice, his students, his children, his fancies, his pets, only interrupted by an occasional interjection or humph on his part, objecting to the picture she had drawn, while she as pertinaciously and pleasantly maintained the strength and vividness of the same. In this way several hours were delightfully passed, when I rose to take leave, saying I should take my departure next morning. "Indeed," said he, "you shall do no such thing. You must and shall stay and dine with me to-morrow at five, and I will invite Muller and other friends to meet you." It was in vain to protest that I could not stay, whilst he was equally positive I should. "What," said he, "leave Berlin after two or three hours talk, runaway with all that nonsense my wife has told you, say you have seen Dieffenbach and know all about him. No, no, that will never do, you must stay, I'll get up an operation for you and let you see what I can do." I found there was no resisting, promised to be there at the appointed hour, and bid good night.

Dr. Gibson was invited to dine with *Dieffenbach*, and gives the following raucous account of the family guests, and the various dishes:

"At the appointed hour, according to promise, I got into a droshki and rode to Dieffenbach's. He received me, as before, in his peculiarly gracious, animated way, by running rapidly towards me with uplifted hands, and then turning as suddenly, and presenting me individually to the assembled guests—a formality very unusual on the continent, where introductions are considered unfashionable and in bad taste—apologizing afterwards for so doing by saying I was a stranger, and the others, five or six in number, his intimate friends, with whom he could take such a liberty. I found them all very agreeable, especially Madame Dieffenbach and a Swiss countess, a very fine looking widow of middle age, with whom she had been acquainted from childhood, being herself a Swiss, and born in Geneva, where her friend the countess resided, which circumstance, perhaps, accounted, in a measure, for the fascinating qualities displayed by both. In addition to Muller there were present a Dr. Bedan, a surgeon in the Egyptian navy, a tall, fine looking, intelligent man, whose acquaintance I had previously formed in London, through Mr. *Liston*, and two other medical men of Berlin, whose hard German names I could neither write nor pronounce—all of them,

however, extremely civil and well informed, and adepts in speaking the English language. But *Dieffenbach* himself was the life and soul of the company. There he sat, speaking, for my accommodation, his broken English, so deliberately yet so quickly and queerly, with so much gravity commingled with so much fun and drollery, as to keep us all, incessantly, upon the *qui vive*, and to give rise, alternately, to silent solemnity and peals of laughter. His memory for events long past seemed to be very perfect, and he appeared to remember with equal distinctness, every one he had ever met, even casually, within the last ten years. "Do you know," said he, "Dr. M——, of Philadelphia?" "Certainly," said I, "he is one of our most respectable physicians, largely engaged in practice." "Ah," he replied, "that chap and myself were well known to each other in olden time. We danced together and ate together and fenced together, but although he was younger than myself, I could beat him all hollow at the last exercise, because I was quicker on my feet and more active all over, whilst he was heavy built and more like a Dutchman than a German. Fencing," he continued, "has been my great pastime, and yet I never got a scratch of any account because I was small and active, whilst I have often made the blood fly from many a fellow's face twice my size. Depend upon it little men are the best men for most purposes after all. The blood circulates in them with more rapidity, and their minds and bodies are the more active for it. Napoleon was a little man, so was Alexander the great. I can dance yet. Madame la Contesse knows that, and so does my wife. Tell M—— he ought to come back and look up all his old friends and acquaintances at Königsburg and other places, and see how much we have all changed for the better since he left." And so he ran on during the whole of the dinner, and yet his incessant talking did not prevent him from eating and from helping others. Mr. Donnelson had previously told me he was glad to find I was going to dine with *Dieffenbach*, for he lived like a prince, and was particularly *recherché* in all that concerned his table and the quality of his liquors. This induced me to pay more attention than I otherwise should have done to the viands, the order of their coming on, and their quality. The table was circular—just large enough to seat six or eight persons comfortably. Soup, exquisitely flavored, without apparently a particle of grease in its composition, but a nondescript to me, first made its appearance; then apricots as large as a Jersey or Delaware peach, with strawberries of every size and variety; then *sturgeon roe* from Russia, red as crimson and delicious, not from the common sturgeon, as Muller informed me, but a particular species highly estimated all over the north of Europe, and very costly; then fried sole *a la Venitienne*, then the *sandra* or pike perch, the greatest delicacy in Berlin; then excellent roast beef and potatoes; then veal cutlets, *a la financiere*, with small young, green peas; then snipe and woodcock, garnies de truffes, with choux fleurs and choux de Bruxelles; then *salade* and *fromage de Roquefort*; then *Charlotte Russe* and ice cream; afterwards, several incomprehensibles mixed up with delicious fruits, and some of the best *Mozelle*, *Burgundy*, *Maderia*, *Johannesberg* and *Stein* wines to be found in Prussia.

The ladies having retired, then the discussion of medical and surgical subjects commenced. Then the active little man bestirred himself more than ever, and began to tell me of his surgical exploits—how he had operated for strangulated hernia, seven hundred times, for calculus without number, for aneurism in the same proportion, for strabismus oftener than he could remember. Then I ventured to say, they accuse you in England, France, America, and other countries, of operating too much. "It is very natural they should," he replied, "because they don't know how much I have to do; that there are four hundred thousand people in Berlin, four hundred and fifty physicians and surgeons, and only seven or eight employed, and but two or three hospitals, so that my hands are full from morning till night, from the town alone independently of people from the surrounding country, and strangers that come to me." I said, "do you know

that I performed the operation of strabismus four or five times before you?" His reply was, "do you know that neither of us are entitled to priority, but that the Chevalier Taylor, in England, performed it thirty years before any one else?" I confessed my ignorance, and started him upon another theme, when away he went, characteristically, at full speed, upon the benefits of *ether*, saying he had employed it to an immense extent, without injury, then rang the bell for his book on the subject, and made me a present of it. In this way, various subjects were discussed so circumstantially and minutely, as to render it impossible to recount the fourth part of all that was said. One by one the company dropped away, and being only ourselves left, he said, "there is still light enough left to show you my stable, horses, and carriages, these are my hobbies, come along and see them."

We shall now close these extracts, and trust they will be found of sufficient interest to justify their length. We believe we have noticed most of the distinguished names mentioned in these lectures, yet we have omitted to notice much other interesting matter, which does not, properly, come within the scope of a medical publication. In fine, we thank Professor Gibson for these interesting lectures. They have both added to our amusement and instruction; and we think they will detract nothing from the already justly acquired reputation of the Professor.

IV.—LECTURES, &c.

1. *Physic and Physicians. The annual address delivered before the Alabama State Medical Association at the Capitol, Dec. 10th, 1850,* 22
By WILLIAM O. BALDWIN, M. D. Montgomery, Ala., 1850, pp. 43.
2. *Valedictory Address to the graduating class of the Medical Department of Transylvania University, March, 1850.* By Wm. M. BOLING, M. D., Professor of Obstetrics, etc., etc., Lexington, Ky. 1850. pp. 20.
3. *An Address to the Medical Faculty of Houston county, Ga., July, 1849.* By EDMUND J. MCGEEHEE, M. D., Macon Ga. pp. 25.
4. *An Introductory to the students in the Indiana Medical College.* By A. B. SHIPMAN, M. D., 1849-50; Laporte, Indiana, 1850. pp. 13.
5. *Letter of Gail Borden, Jr., of Galveston, Texas to Dr. Ashbel Smith, on a new article of food; addressed to the American Association for the promotion of science, 1850.*

We have read Dr. Baldwin's address to the Alabama Medical Association with no ordinary feelings of pleasure and admiration; it abounds

in argument, apt illustrations and eloquent appeals in behalf of the dignity and claims of the medical profession. His *critique* upon the various systems of quackery of the past and present is at once just and manly, and if made public, might produce good results. But what do all our invectives and ridicule, directed against charlatany and its kindred brood, avail us, since the great mass of the people neither see nor read our phillipics. We say, gentlemen, publish your crusade against ignorance and stupid credulity, in the prints of the day. We are assailed through these channels, and we reply in the lecture room—to the profession; hence we are neither heard nor feared. Who, but medical men, ever think of reading a pamphlet, however attractive its exterior, containing the best digested matter and the richest treat for the philosophical mind? We reply, none; men may swallow physic, but they will not read it, and to be understood and appreciated, the profession must mingle medicine (not literally) with commerce; a little law, agriculture, and the mechanic arts. By this course, we may woo and win their attention to the things that appertain to their temporal, to their physical well-being. We are glad to perceive that Dr. Baldwin has looked into the conduct of the reverend clergy, and told some truths, which will not prove very palatable. They are notoriously able abettors and advocates of every species of quackery; and yet, shame upon them, they accept the services of the physician without ever deigning to tender him the least pay.

As we expect to be furnished with an able review of Dr. Baldwin's address, by a friend, we shall conclude by expressing our entire satisfaction both with the style and views enunciated by the author in his elegant address. Alabama may be justly proud of her medical faculty, which takes rank with that of any other State in the South; yea, in the Union!

The address by Professor Boiling, another adopted son of Alabama, abounds in just sentiments, elevated views and great love for legitimate medicine.

In the outset he tells the young graduates of the immense sacrifices they must incur, in the road to honors and preferment in their profession, makes the track appear so rugged and steep that few can command the courage to climb the height whereon fame sits enshrouded in her robes of cloud. Alas! could these things have been told them before they put their hands to the plough! but now it is too late to repent, to look back; they must advance, or be dishonored; then bid them God-speed; cheer them onward, and tell them of the pleasures of hope, of the sublimity of poverty; of the triumphs of science, and lastly, of that immortality of which they will hear much and reap but little! But enough of this; the picture, if faithfully drawn, would but sadden the heart and sicken the soul.

The young graduate now *minus* the fees and armed with a slip of parchment which only gives him a passport to poverty and all kinds of self-denial, is kindly told by his Professors, at the eleventh hour, that "disappointment will probably be his lot!" that the practice of his profession will entail upon his body premature decay and unmitigated poverty!

Such is the prospect spread before the young doctor, who is about to launch his frail barque upon the turbid ocean of professional life.

Professor Boling does not forget to give a tilt at quackery—that fruitful theme for the poet and medical philosopher, both of the past and present; but does all our exhibitions of the hideousness of charlatanry and its baseness, open the eyes of the people to its great and manifold evils? Let the daily newspapers and our great thoroughfares speak on this subject, and until human nature undergoes some kind of metamorphosis, we may expect to encounter quacks and quackery in every civilized community. Let us rather apply ourselves to the task of doing our duty—of cultivating the science of medicine, and treat with dignified silence the vain-boastings of nostrum-mongers and pretenders in medicine.

By denouncing this class of persons, we but weaken our own claims upon public respect and confidence, and give notoriety to the charlatan.

Taken as a whole, this address will not detract from the high reputation of Professor Boling, who has on several occasions given ample proof of his learning and devotion to medical science. Called from the home of his adoption to fill a Professorship in one of the oldest medical schools in the West, may be considered a high tribute to his talents and a great compliment to his zeal and learning in the science of medicine.

The new field of labor to which he has been called by his talents, will give greater scope to his efforts and add to his growing fame. It is much to be regretted that this address is so seriously marred by the negligence of the printer, as it abounds in typographical errors, most foul and unseemly.

The address by Dr. McGehee, on the duties of the medical profession to the people, and of the people to the medical profession, is a very creditable effort, and as it was addressed to an unprofessional audience, may be productive of much good. After enumerating many of the prejudices cherished by the community against the study of anatomy and pathology, Dr. McGehee points out the impracticability of our becoming safe and sound practitioners without a familiar acquaintance with these two fundamental branches of medical science.

The laws of Georgia decrees it a criminal offence in a physician to exhume bodies for anatomical purposes. Against this puerile and absurd prejudice, (for it is nothing else,) Dr. McG. inveighs in terms of severity, and we did believe and hope that all such laws had long since been blotted from all our statute books. The State of Louisiana has long since purged herself of all such nonsense.

Dr. McGehee animadvert in bitter but manly terms against the public for the encouragement which it extends to the quack and the mere pretender, to the neglect of the enlightened physician. This is an evil which we must learn to bear, but which we fear is irremediable; it may bring sorrow and disappointment to the heart, but let it not discourage us in the discharge of the high and holy duties devolving upon us in the practice of the noblest of arts—the curative art.

The address embraces some excellent advice both to the public and the profession; but we fear neither will be materially benefited by it.

Professor Shipman of Indiana Medical College, writes as an enthusiast on medical topics; he evidently throws his whole heart into the subject and speaks out in defence of physic and physicians. His description of the triumphs of science; of the great moral courage of the medicine-man—of his calmness amid dangers and death, are truly admirable and nothing extenuated. The courage of the warrior, when about to rush into battle, is stimulated by the clamor and clangor of contending arms, and is the courage of hate—of the animal; whilst that of the physician, when surrounded by pestilence and infectious epidemics, partakes of the moral, the intellectual; because it requires no martial music or thundering artillery to kindle it up and to feed it; it is composed, calm, and unshaken amid the ravages of death.

Mr. Gail Borden of Galveston, "while attempting to prepare some portable food for a few friends going to California," accidentally discovered a new process for preserving the nutritious properties of meat.

This invention consists in an improved mode of preparing meat of any kind, by making an extract of it, and then combining with it flour or vegetable meal, and afterwards bake it in an oven, in the form of a biscuit.

One pound of this bread contains, says Mr. Borden, the essence or extract of more than *five* pounds of meat, (including the usual proportion of bone,) and one ounce of it will make a pint of rich soup." The meat biscuit as prepared and described by Mr. B., is, we think, a valuable and a useful discovery; as it will be found of the highest value to the navy and the marine service; to travellers, on long journeys over wilds and desert wastes; to hospitals and other public institutions, and indeed to families. We think it would form an excellent diet for the dyspeptic and invalid traveller.

Mr. Borden, as soon as satisfied with the value of his discovery, addressed a letter to the distinguished Ashbel Smith, M. D., of Texas, asking that gentleman's opinion in writing on the value of his discovery.

Dr. Smith in his reply, speaks in high terms of the meat biscuit, and predicts for it a successful run as an article of food. Dr. Smith's letter was addressed to Dr. Alex. B. Bache, President of the American Association for the advancement of knowledge.

V.—*Seventh Annual Report of the Managers of the State Lunatic Asylum.* Made to the Legislature, Feb. 4th, 1850. Albany, N. Y.

Report of the Pennsylvania Hospital for the Insane for the year 1849. By THOS. KIRKBRIDGE, M. D., Physician to the Institution. Philadelphia, 1850.

The annual report of the managers of the New York State Lunatic Asylum to the Legislature comprises much valuable statistical information on the subject of Insanity. This asylum was thrown open to the public on the 16th February, 1843, and from that date up to the publication of this report, the whole number of admissions numbered 3,376; and of this sum 1017 were discharged cured; 419 discharged improved; 222 unimproved, and 269 died.

At one time, great fears were entertained that the cholera would break out in the asylum; but we are glad to perceive that both this institution and the city of Utica entirely escaped that terrible scourge.

The managers bestow a passing but deserved tribute to the zeal and talents of their late medical superintendent, Dr. Brigham, who sacrificed his valuable life in the actual discharge of his onerous public professional duties. After the demise of Dr. B., Dr. George Cook, first assistant physician, continued to perform the duties of superintendent up to the 8th of December, when Dr. N. D. Benedict, of Philadelphia, received the appointment of superintendent, vacated by the death of Dr. Brigham.

The number of males admitted into the asylum are a fraction more than that of females. The general health of the institution remained good until August and September of 1849, when several cases of dysentery occurred; and in December of that year the small pox broke out among the inmates, continued for several weeks, and proved fatal in a number of cases.

We now propose to turn to the positive statistics of this asylum; and we shall transcribe table 2d, *showing the monthly admissions for seven years*, as follows:

TABLE 2.
Monthly admissions for seven years.

	Men.	Women.	Total.
December,.....	89	76	165
January	85	77	162
February,.....	93	67	160
March,.....	94	76	170
April.....	95	95	190
May,.....	135	109	244
June,.....	102	111	213
July,.....	114	120	234
August,.....	91	93	184
September,.....	90	113	203
October,.....	111	111	222
November	110	119	229
	<hr/> 1,209	<hr/> 1,167	<hr/> 2,376

TABLE 3.

Showing the seasons of the year when patients were supposed to have become Insane.

January,.....	157
February,.....	145
March,.....	205
April,.....	179
May,.....	222
June.....	250
July,.....	191
August,.....	180
September,.....	187
October,.....	232
November,.....	177
December,.....	146
Unknown,.....	141
	<hr/>
	2,375

The preceding summary points to the months of *May* and *October* as the two periods of the year, the most favorable to the development of insanity; but whether there be any connection between mental diseases and particular seasons of the year is exceedingly problematical, and may not stand in the relation of cause and effect.

"Table" the 5th refers to the *ages when insanity commenced*, as follows:

TABLE 5.

Ages when Insanity commenced.

Under 20 years of age,.....	255
From 20 to 25 years of age,.....	436
25 30 do.	404
30 35 do.	306
35 40 do.	298
40 45 do.	233
45 50 do.	153
50 55 do.	99
55 60 do.	86
60 65 do.	56
65 70 do.	32
70 75 do.	5
Over 80 years of age,.....	3
	<hr/>
	2,376

This shows that persons between the ages of 20 and 25, are more prone to insanity than at any other period of human life, and we believe the same may be said of many other diseases, as consumption, &c.

Of the "occupation" of those admitted into the Institution, the "farmers" greatly excel in numbers; the next in order of frequency, are "laborers"; then merchants, "scholars", "joiners", "clerks", and so on. "Attorneys" and "physicians" are about equal; a result scarcely

to be expected, as the latter, it would seem, are much more exposed to the supposed exciting causes of the disease, from the wear and tear of both body and mind. Of the "occupation" of the females, 1006 of 1167, were employed in "house-work". The *civil condition* of the 2376 was as follows:

Married,	-	-	-	-	-	-	-	-	1119
Single,	-	-	-	-	-	-	-	-	1113
Widows,	-	-	-	-	-	-	-	-	101
Widowers,	-	-	-	-	-	-	-	-	43

The advocates for matrimony will not be likely to refer to the above table, in support of domestic felicity, and that peace of conscience which imparts tranquility to the mind.

The causes which are supposed to have produced the mental alienation in the above 2376 cases are as various as the emotions of the mind are complex and diversified. At this point, we begin to grope in the dark; we have already travelled beyond the confines of physis, and entered the domain of metaphysics; we cannot unravel the web of the human mind; we can seldom detect the hidden cause which dashes the intellect from its orbit, and drives the breathing thoughts of genius from their sphere! Physiology sheds but a feeble, a flickering light, upon Psychology; the first treats of the vital dynamics, the second, of that Divinity which "stirs within us, and makes us what we are!"

Attached to the Asylum, is a "farm and garden", from which are gathered annually, by the inmates, a large quantity of vegetables, which either serve as food for the patients, or are disposed of to support the institution.

Besides the gardens, etc., they have work shops, which give profitable and healthful employment to all those at all skilled in the mechanic arts.

The Report concludes with a statement of the number of *suicides* committed in the State of New York, for the years 1845, '46, '47, '48 and '49. The total number for 1845 was 74; for '46, 64; for '47, 106; for '48, 88; for '49, 62; making the grand total of suicides for the five years, 294. The assigned cause in more than three-fifths of the entire number, says the Report, was "mental derangement"; thus showing the great danger of trusting, continues the Report, persons who are known to be partially insane, with the means of accomplishing self-destruction.

Altogether, the Report is complete and satisfactory, with one exception; that is, no mention is made of the mode of treatment which has been found most successful in the management of insane patients.

Mere statistics—an examination of the sexes—of the ages, etc., etc., is all very well; but the world is getting too practical, too utilitarian, to be content with empty figures. Then give us, gentlemen, your *Pathology* and *Therapeutics* of the Insane, and the result of your practice, with a history of particular cases. We are again under obligations to the officers of this great institution, for a copy of their Report.

The Report of the Pennsylvania Hospital for the Insane for 1849,

drawn up by the medical superintendent, Dr. Kirbridge, is, as usual, quite an instructive and interesting document. The average number of patients in the Asylum throughout the year is about two hundred and ten, ninety-nine of whom are females. Notwithstanding the prevalence of the cholera in the immediate vicinity of the hospital, yet not a single case of that disease was witnessed within its walls; and, in this respect, it was equally favored with the New York Asylum, as we have already seen that this last also escaped the dreaded cholera. To what cause may we ascribe this exemption from an epidemic so universal in its ravages, and so impartial in its fell swoop! The reports of both these Hospitals, with more piety than philosophy, ascribe it to the protecting power of a kind providence. But to the merits of the report:

The number of patients discharged during the year 1849 was one hundred and eighty-seven; of which number one hundred and four were cured; much improved, six; improved, thirty-three; stationary, twenty-five; died, nineteen.

Of the nineteen dead, twelve were males and seven females; of these cases five died of consumption, two of apoplexy, one of congestion of the brain; four were cases of acute mania; two died of chronic enteritis, one of chronic organic disease of the brain; two of exhaustion; one of bronchitis, and one of inflammation of the pericardium. Of the ages of fifteen hundred and ninety-nine cases admitted for insanity, the greatest number was between the ages of twenty and twenty-five; the same as in the New York Asylum. This shows, conclusively, that mental diseases are much more liable to occur about and a little after puberty, than at any time prior or subsequent to this period of life.

The civil condition of the fifteen hundred and ninety-nine patients was as follows:

	Males.	Females.	Total.
Single, - - - - -	507	283	790
Married, - - - - -	341	327	668
Widows, - - - - -		100	100
Widowers, - - - - -	41		41

The above table is a little different from that of the New York Institution, and we refer the reader to our remarks on that subject in the first part of this notice.

The forms of mental disease for which the 1599 patients were admitted are summed up as follows:

	Males.	Females.	Total.
Mania, - - - - -	429	373	802
Melancholia, - - - - -	181	181	362
Monomania, - - - - -	140	88	228
Dementia, - - - - -	132	65	197
Delirium, - - - - -	7	3	10

We copy the following table showing the state of 1378 patients who have been discharged or died; their sex, and the form of disease for which they were admitted:

TABLE, Showing the state of 1378 patients who have been discharged or died—their sex, and the form of disease for which they were admitted.

	Males.	Females.	Total.	Mania.	Melancholia.	Monomania.	Dementia.	Delirium.
Cured,	410	327	737	443	183	97	13	1
Much improved,	58	59	117	57	31	22	7	
Improved,	105	88	193	83	49	31	30	
Stationary,	111	71	182	74	33	28	46	1
Died,	86	63	149	71	31	7	32	8

Attached to this Hospital are, also, a farm and garden, workshop, museum and reading room. Besides, they have lectures, evening entertainment, and instruction for the patients.

From this report, we conclude the Pennsylvania Hospital for the Insane is the best regulated institution, perhaps, on this side of the Atlantic.

The same objections may, however, be urged against this report, as was stated in our notice of that of the New York Asylum, namely : no mention is made of the medical treatment of the insane ; no symptoms reported ; no cases elaborated ; in a word, the report is silent on those very points upon which the general practitioner is desirous of being informed. Aside from this material deficiency, the report will be found valuable, and we return our thanks to the author for his favor.

VI.—*A Systematic Treatise, Historical, Etiological, and Practical on the Principal Diseases of the Interior Valley of North America, etc., etc.* By DANIEL DRAKE, M. D., of Cincinnati, Ohio. pp. 878,—1850.

We are greatly indebted to the distinguished author of the above work for a corrected copy of the proof-sheets. It arrived too late to be noticed in *extenso* in this number of the Journal, but, from a cursory examination of its pages, we are disposed to regard it as destined to attract much attention, and as calculated to add to the already high reputation of Dr. Drake. Indeed, we know of no one in the West better qualified to write a history of our climate and diseases than Dr. D., who has lived here more than half a century, and is perfectly familiar with our climate and topography. In our next, we shall strive to do justice to the work.

Part Third.

EXCERPTA.

I.—*Medical History of two Epidemic Yellow Fevers. Translated from the French, with notes. By the Editor.*

Yellow Fever.

CHAPTER II.

[Continued from page 652, vol. vi., No. v., March, 1850.]

Varieties of Yellow Fever, &c.

First Variety. The cause of yellow fever acts with such rapidity that the powers of life may be destroyed by the violence of the spasm and the pain, or by the obstacle which the spasm opposes to the respiratory functions; the patient perishes as by asphyxia.

Second Variety. The cause acts primarily on the brain, concentrates itself upon this organ and upon the spinal marrow, and determines rapid and fatal congestions—a sort of apoplexy.

Second Class. Little or no localization.

First Variety. Ordinarily grave; yellow fever lesions multiplied over a great number of organs; it is the third variety of M. Pariset.

Second Variety. The same affection, but less intense; analagous to the second variety of M. Pariset.

Third Class. The stomach is the focus, the centre of the disease; because, at the moment in which the yellow fever is developed, we find it already a prey either to an inflammation or to a simple sur-excitation. Besides, the two states, the irritation of the digestive passages, in yellow fever, is purely nervous, according to Dr. Chabert, and only reach the point of inflammation with difficulty, because the black, imperfect, and altered blood may readily produce congestion of the digestive mucous membranes, but fail to inflame them.

M. Bélot, who, for twenty years, studied the yellow fever of Havana, and who obtained, in the treatment of this disease, such remarkable success, admits four peculiar types, which he thus classifies:

First Type—Acute gastritis.

Second Type—Entero-hepato-gastritis.

Third Type—Colo-entero-gastritis.

Fourth Type—Meningo-cephalo-gastritis.

These terms, adopted by M. Bélot as the most useful, because they specify

the organs affected, should not, however, express the idea of an ordinary inflammation, as the termination in *itis* indicates. We see that the stomach always constitutes one of the suffering organs.

The first type, *acute gastritis*, supervenes suddenly, without premonition, by a series of symptoms, announcing that the entire affection is concentrated in the stomach. Its progress is very rapid, and may bring on black vomit in the space of twenty-four hours. At other times, the disease appears with less violence. The digestive tube and the liver are attacked in their turn, and then the yellow fever appertains to the first type, from its origin, and passes, in this progress, into the domain of the second, namely, *entero-hepato-gastritis*. This last is nothing but the third variety of M. Pariset, the second class of M. Chabert, the ordinary yellow fever of all authors.

In the third type, *colo-entero-gastritis*, the disease begins in the large intestine, and progressively extends to the small intestine; then to the stomach. This third type is infinitely more rare than the preceding. M. Rochaux confirms, by his own personal observations, the existence of this form of yellow fever. We read in his work, (page 106 :) "The umbilical pains are not observed until towards the third or fourth day, after the epigastric pains. It is the contrary when the patients complain only of the abdomen at the commencement of the disease, and experience afterwards embarrassment and pain at the epigastrium. In this case, the inflammation of the intestines is propagated to the stomach. We perceive the stools then to be black, and the vomiting of this color only appears afterwards, which is the contrary when the pain of stomach is first set up. Yet," adds M. Rochaux, "this *ascension* of the disease, if I may thus express myself, is far from being frequent, and when it takes place, it may, in many cases, be attributed to errors of treatment." In the fourth type, *meningo-cephalo-gastritis*, the disease supervenes suddenly, by a cerebral congestion of such intensity, that often the patient falls as if struck by apoplexy. (Second variety of the first class of Dr. Chabert.) It is after blood letting is practiced to remedy this cerebral congestion that the symptoms of yellow fever, properly so called, are developed; that is to say, that to the affection of the meninges, or the brain, is associated lesions of the digestive tube.

John Wilson, Chirurgeon Major of the *Rattlesnake*, stationed at the West Indies, in 1824, had an opportunity, in an epidemic which broke out upon his ship, of seeing the yellow fever under various forms. His observations led him to divide it into two genera: 1st, Inflammatory yellow fever; 2d, Congestive yellow fever.

1st. *Inflammatory yellow fever* possesses three grades, the moderate, the violent, and the intense. These are rather degrees of the same species. The premonitory symptoms were force and frequency of the pulse, a dry heat of the skin, cephalalgia, haggard countenance, with confusion of intellect, and sometimes inflammation of the eyes, pain in the back and loins, in the lower extremities, especially in the joints of the knee, and the muscles of the thigh and of the leg. On the second day, the symptoms are frequently aggravated, and the stomach becomes irritable. This symptom, so rebellious in the violent species, cannot often be arrested until the period at which fatal accidents may supervene in consequence. Delirium manifested itself at an early hour in the intense and violent species, and it is always accompanied with great danger. The constipation was generally obstinate, but sometimes it was replaced by diarrhoea and exhausting tenesmus; urine scanty, highly colored, and discharged with difficulty and pain; incessant and unquenchable thirst. The disease ordinarily ran its course in four days.

2d. The *congestive yellow fever* is differently characterized. A sentiment or feeling of stupor, of weight and oppression, rather than pain in the head; a sensation of weakness, affecting the spine, and especially painful towards the sacrum; paralytic debility of the inferior extremities, with pain in the joints of

the knees ; a rapid and expansive pulse, but ever feeble and easily compressed ; a condition of skin various, and difficult to define, but wanting in tone ; generally no augmentation of heat, except at the precordial region, when it was limited and excessive ; an expression extremely painful may be observed in the countenance, either of mortal paleness, or of a livid tint ; and eyes like those of a person under the influence of liquor, or of an idiotic expression, with dilated pupils ; surdity ; profound and interrupted sighs ; strong tendency to coma ; irritability of the stomach, which is readily established. M. Wilson distinguishes three species of congestive yellow fever : the light, the aggravated, and the apoplectic. In the last species, death was quite sudden ; in some cases there was reaction, but feeble, partial, and irregular ; then life was prolonged, and the physician entertained hope ; but it was seldom realized ; for profuse hemorrhages supervened, which destroyed life. In the first genera of Dr. Wilson, we recognize ordinary yellow fever ; in the second, we encounter a multitude of typhoid phenomena, which have complicated so many epidemics, as we shall hereafter see. The apoplectic form approaches the two species established by MM. Chabert and Bêlot.

We have already said enough on this point to demonstrate that the yellow fever does not always present the same phenomena ; the special study of some of the symptoms will tend to complete this demonstration, and will furnish us, in addition to the preceding, with adequate proofs to trace the progress, and diagnose the disease.

M. Rochaux has divided the symptoms of yellow fever into three classes : A.—Real symptoms, or those which depend in a more special manner than the others upon the inflammation of the stomach and intestines. B.—Symptoms of complication, or such, at least, in the majority of cases. C.—Common or general symptoms. This very methodical division will serve as a guide in the investigation to which we are about to proceed.

A.—*Real Symptoms, or Symptoms Proper*—VOMITINGS.—In more than one hundred patients, says M. Rochaux, we will not find a single one of this number who shall be exempt from it ; and, if all have not black vomit, all at least have bilious vomitings. The nausea which precedes them, sometimes commences with the disease. The slightest movement of the patient often suffices to excite vomiting ; the ingestion of drinks, the most mild, frequently provokes them, to such a degree, that we have seen many patients, devoured by the most intense thirst, refuse to drink, in order to avoid the distress attendant on vomiting. A very singular fact has, however, been mentioned, namely, that in the yellow fever the stomach empties itself in an instant ; by an effort scarcely perceptible the evacuation is rapidly accomplished ; and when it has terminated, the desire to vomit ceases at the very moment when the fluid re-accumulates, and thus it continues. I do not believe that this observation is generally correct.

Black vomit does not exclusively appertain to yellow fever ; it is sometimes produced by mineral and vegetable poisons. We have, likewise, observed it in some acute and chronic affections. (Valentine, page 168.) Its existence, then, is not an indubitable evidence of yellow fever ; but its combination or *reunion* with other symptoms establishes a positive diagnosis. The absence of this phenomenon does not, then, by any means, exclude yellow fever. All authors have cited a great number of cases in which there was no black vomit, yet the issue was no less fatal.

Black vomit is always, or almost always mortal ; on this point, M. Rochaux has observed, that black clots furnished by the œsophagus, may be thrown up and still a cure be effected ; whilst death is inevitable, if the black matter comes from the stomach. *Alvine dejections.* Most usually there is constipation ; but in some cases, a diarrhœa either prevails or accompanies the yellow fever. When the stools are black and fœtid, the prognosis is very unfavorable. *Coloration of the face and expression of the countenance.* According to M. Rochaux

the face is always more or less red from the first attack; towards the second day it becomes anxious; a high degree of redness generally indicates inflammation.

Besides the general swelling of the face, we often find a particular puffiness of the nose and lids. These parts are tense and shining, similar to those in which there is a sudden and abundant *filtration* of serosity. This redness and this swelling always diminish towards the fourth day; the face is then sometimes covered with a sombre leaden hue, mixed with a yellow, livid, greenish violet, which impart to the physiognomy an air of profound alteration, analogous to the species of shade which M. Dalmas has observed in some cases of yellow fever. M. Catel, at Saint Pierre, compares the coloration of the face, to that of clear colored mahogany.

All writers, MM. Pariset, Bally and François excepted, give, as an incipient symptom of yellow fever, the high color of the face; these last observers say that they have witnessed many examples of such cases, but that most commonly the face preserves a hue scarcely more animated than in an ordinary case of health, and that sometimes it is even paler. *Condition of the eyes.* Redness of the conjunctiva has been observed in various degrees; even of a scarlet hue, threatening hemorrhage; these are the words of M. Pariset, and it is difficult to reconcile this partial injection with the general paleness of the face.

Pains of the head; of the loins; of the limbs.—They are constant, and have, on this account, been regarded as pathognomonic symptoms. Yet, says M. Rochaux, we have seen the lumbar pains entirely wanting, even in patients laboring under nephritis. It is always encouraging to find it moderate; it is sometimes intolerable, and extorts cries from the patient. In cases of this kind, most usually of eminent danger, there exists almost always an inflammation of the kidneys, which soon induces suppression of urine. I do not believe that nephritis can have the slightest influence over the lumbar pains, for, in admitting that the suppression of urine may be the result of a nephritis, this suppression is very rare, whilst rachialgia is a symptom which almost all authors record as constant.

Pains and palpitation at the Epigastrium.—We have already said that the epigastrium was often painful. It is, moreover, the seat of another phenomenon, which I have not found pointed out by any, except by MM. Pariset, Rochaux and Littré.

Often, says M. Rochaux, conjointly with slight disturbance of the respiration, we remark at the epigastrium continued palpitations which seem to be produced in every case by the pulsations of the coeliac artery and its branches, and by the respiratory movements. This symptom, always very troublesome, manifests itself towards the fourth or the sixth day. M. Pariset thus expresses himself: We sometimes observe palpitations which take place about the cardiac and epigastric regions; this symptom appertains to all periods; it is more frequent, however, in the first, than in the last period. It is probably a nervous phenomenon, and which, in general, is not dependant upon that which passes in the vascular apparatus. These different remarks of M. Pariset are in harmony with the observations of Doctor Bélot of Havana, who was first to generalize them, and who, having ascertained the existence of these pulsations in almost all cases, considered them as constituting one of the symptoms of yellow fever. I shall, hereafter, record what experience has brought me on the subject. *Umbilical pains.* Towards the conclusion of the first period, and more frequently in the course of the second, intestinal pains are felt. The umbilical region is that which is particularly affected. This is one of the most painful and the most troublesome symptoms. (Pariset,) according to M. Rochaux, these pains are not observed until towards the third or fourth day.

M. Audouard ascribes them to the presence of black matter, which, after

having escaped through the orifice of the stomach, produces an impression upon the nervous papillae of the intestinal mucous membrane. The abdomen never experiences that tension of which some authors have spoken.

At Point a Pretre, in 1838, however, some cases of it were witnessed; but then, as we shall have occasion to state, the yellow fever was evidently complicated with typhoid symptoms.

Insomnia.—The deprivation of sleep, during the first days, has been remarked by many physicians, but they have confined themselves to a mere statement of the fact. M. Rochaux has qualified it, by stating that the patients sleep but little the first, less still the second, and none at all on the third night; inso-much, that this progressive diminution of sleep increases with the progress of the disease.

Agitation, feebleness, hypothyria.—Patients are generally restless; they desire every moment to change their position; to go from one bed to another; sometimes, from the slightest movement, they fall into syncope; in other cases, on the contrary, we are quite astonished to see men in whom a state of apparent debility renders all muscular contraction impossible, rise without the assistance of another person, walk with a firm step, and even resist with great energy the nurses who endeavor to conduct them to their beds. This sort of exaltation of the forces is sometimes reproduced at short intervals throughout the entire course of the disease; most generally it precedes death only a few hours, even a few minutes.

M. R., an officer in the French navy, expired struggling against the *infirmiers* of the frigate ——— to promenade the battery. *Odor of the breath.* When buccal hemorrhage takes place, the breath is very fœtid; it is then probable that this depends on matter in a state of decomposition in the mouth, rather than any specific alterations in the functions of respiration, or an alteration in the secretions; many have declared to us that they have received from these kind of exhalations such a powerful impression on the throat, that it left a feeling of acidity which has continued for many days; it is possible and even probable that Mayet was the victim of such a cause. (Pariset, page 413.)

M. Belot has specified a peculiar odor of the breath, which is not that of animal decomposition; we can compare it to no other; it so frequently manifests itself, even in the absence of buccal hemorrhage, that this physician considers it as one of the signs of yellow fever; to him it appears of such little importance to respire it, that he recommends all those who follow his *clique* to test it, by receiving it directly from the breath of the patient, at the moment when he makes a forcible expiration.

The odor which the body of the patient disengages, is sometimes insupportable; infectious, when the patients are kept cleanly, we do not perceive any disagreeable odour. (Pariset.)

GENERAL SYMPTOMS.—Pulse.—At the beginning of the disease, it is, in the great majority of cases, frequently developed, and very strong, sometimes hard, and again soft, rarely or never small, concentrated and feeble.

The frequency of the pulse is truly indicative of the issue of the disease; the danger is rarely great when the pulse varies from eighty to ninety pulsations; the affection is always very grave and the issue to be feared when it reaches over one hundred and twenty. In the progress of yellow fever, the frequency of the pulse diminishes almost always in a sensible manner; the pulse sometimes becomes very slow, from forty-five to fifty pulsations per minute; it is a favorable symptom if the others diminish at the same time, very unfavorable if they persist.

When in the fourth or sixth day, it preserves the frequency of the first, or only diminishes slightly, the danger is very great. Death, we may say, is inevitable, if, instead of diminishing, it increases in frequency.

Almost always, in these cases, its force remains the same; perhaps even more uniform when the patients have been bled, than when they have not been depleted by this means, (M. Rochaux, page 136.) The observations of almost all authors correspond with those of M. Rochaux. M. Pariset, alone, as I have already said, differs from the rest.

M. Dalmas has also observed, towards the third day, a remission in the circulating forces; it seems, says he, that the arterial vibration acquires then an amplitude or fullness which indicates either a want of elasticity in the vascular tunics, or the presence of an irritating fluid, whose development is caused by decomposition of the constituent principles of the blood.

Thirst, temperature of the Skin.—Although there may be no immediate connexion between these two symptoms, yet I unite them, because there exists some difference of opinion in regard to them, between M. Pariset and other observers; thus he says there is generally but little thirst, and that the heat does not increase so much as to produce the acidity which we observe in the dangerous fevers of our climates, whilst the contrary opinion is too universal to be without foundation. The cases of M. Pariset should then be considered only as exceptions analogous to those which M. Rochaux has reported, when he says, (page 140,) “to me it appears unfavorable to see patients in whom the febrile irritation has arisen to great intensity; to be but slightly, or not at all altered. This species of ataxia, observed in the beginning of the disease, or during its progress often announces a cerebral affection.”

State of the Tongue.—We have indicated the irregularity in the appearance of the tongue; M. Rochaux says, however, that the thin whitish coat on the tongue is a favorable sign; that when it is yellowish and tenacious, there is more danger to be apprehended; that lastly, the dryness of this organ forms an unfavorable prognosis.

Urine.—When the urine is abundant and clear, it constitutes a favorable symptom; it is the contrary, if it is high colored, thick, little in quantity, sanguinolent and black. This latter color, first mentioned by Puquet, has been since pointed out by many physicians, and among others by Dr. Belot.

The suppression of urine is due according to M. Audouard, to an alteration of the blood, (in consequence of hemorrhage,) and to an imperfect circulation; this is the reason it does not occur until about the third stage of the disease. M. Rochaux attributes it to the existence of *inflammation*; M. Calve thinks that it is attributable to the cessation of the action of the kidneys, but not to their inflammation. It is one of the most fatal prognostic signs; happily it is much less frequent than has been represented.

Hemorrhages.—In the last period of yellow fever, the blood has a strong tendency to escape from its vessels; it is this that explains the difficulty which we experience in arresting, at this epoch of the disease, the discharge of blood, which takes place from the puncture of leeches. (MM. Rochaux et Calve.)

Epistaxis has been variously estimated by practitioners; if, at the beginning of the disease, the nasal hemorrhage is abundant, it is a favorable sign; when the discharge takes place drop by drop, and recurs several times through the day, it is an evidence of great danger. If the blood is not coagulable, and the hemorrhage be passive, death will soon take place; lastly, a cure is rarely effected when the epistaxis does not supervene until about the sixth day. (Rochaux.) M. Dalmas has seen the contrary result. (pages 126 and 128.)

Buccal hemorrhage is generally unfavorable or insignificant. The appearance of *petechiae* is a most alarming symptom; at whatever period of the disease it may supervene, it is rare that death does not follow. The same may be said of *ecchymoses*, which usually occur a little later. Intermuscular hemorrhages are announced during life, by a very acute pain, coming on suddenly, and soon followed by considerable swelling of the part, in which it takes place. They

have been observed in the majority of epidemic yellow fevers, and very recently at Senegal, at the French Antilles and at St. Domingo, by MM. Calve, Corneul and Ralland, surgeons of the marine; they have always proved fatal.

MM. Pariset and Valentine have observed that parotitis, though very rare, are trifling in themselves, being neither critical nor alarming. Dr. Calve cites a sister of charity, at Saint Louis, who presented two malignant pustules on the face, in the course of an attack of yellow fever to which she succumbed.

Jaundice.—C.—Symptoms of complication. Not only does jaundice not specially appertain to yellow fever, but it does not always exist even in this disease: on this point, there is a distinction to be made between those patients who may be cured, and those who succumb. Among the latter, it is rare for a single individual to escape a degree of yellowness, the traces of which may not be perceived on the conjunctivæ, the face, the neck, or the chest.

Among those who are cured, on the contrary, at least one half will not manifest any traces of jaundice. Thus the appearance alone of this symptom, is, in itself, of great importance; the epoch at which it develops itself is perhaps still greater.

The sooner the jaundice appears, the more apprehension is to be entertained; when later than the seventh day, it becomes a feature of trifling importance; from the third to the fifth, it always indicates great danger, and we must always find it to be an indication of certain death, when it takes place from the first to the second day. The promptitude with which it diffuses itself, or increases in intensity, is a consideration still more important. When the danger is great, we can, with difficulty, distinguish the first traces of the jaundice, with which the entire skin is tinged; it attacks simultaneously the whole surface of the body; instead of presenting a pale yellow, it passes into a deep yellow, or mixed with a violet brown.

(Rochaux, page 124, et suiv. These remarks are strictly correct, of which we may be convinced, by reading the writings of Deveze, Valentine, Thomas, Dalmas, Gerardine, etc., and their application is further more confirmed by the more recent epidemics.

Dilatation of the pupils.—From the first period, says M. Pariset, our attention has been particularly directed to the state of the pupils, and we have observed nothing which claimed a specification: commonly they were nominal in appearance; sometimes slightly contracted; rarely much dilated. At the third stadium, there was neither more nor less dilatation of the pupils, except on the approach of death, when every thing passed as in ordinary cases. The dilatations, when very manifest, seemed to be caused by the presence of worms, which, as we well know, were frequently witnessed in the epidemic of Barcelona.

According to the majority of writers, the dilatation of the pupils is but an exceptional symptom; at Martinique and at Gaudalope, however, not only in those epidemics prior to 1827, (of which fact we may be convinced by reading the thesis of M——, but moreover, from the beginning of the epidemic of last year, the pupil almost uniformly appeared dilated; but this phenomenon is connected, in these cases, with the existence of cerebral symptoms, and this is the place to examine the delirium, the coma, the subultus tendinum, etc. Lastly, there is a difference of opinion among authors relative to these phenomena, and we ought to draw this conclusion from those already specified: that such epidemics, although identical in its principal features to others, yet it may have its particular form. Peruse, for example, the thesis defended in 1836, at Paris, by M. Chev , Chirurgien of the Marine, and you will find that the epidemic yellow fever which ravaged the Island of ———, in 1830, did not openly declare itself from the beginning; that it was possible, in consequence, to recognize three distinct periods in the disease: the first, the duration of which was from five to six days was characterised by symptoms of a very grave character,

which manifested nothing peculiar to yellow fever; during the second period, of eight or ten days continuance, the disease was ushered in, moreover, by cerebral symptoms, but at the second period, these symptoms were almost entirely superceded by those of gastro-hepatitis. Between the two periods of the second degree, there was a complete, a precious calm, of which M. Cheve skillfully and successfully availed himself by administering the *sulphate of quinine*, so that this interval was occupied by pernicious remittent fever, which served as an imperceptible transition between the two diseases at the beginning, and the declared yellow fever that formed the third epoch.

Well, in thirty places only, at Goree, where the yellow fever has been observed to arise, to spread, and not to assume its peculiar character until after a specified time; at Saint Louis, in Senegal, it appeared at the onset in all its force, and the first patient, as at Goree, died with the black vomit, suppression of urine, and icterus.

In the month of June, 1838, after eleven years' absence, the yellow fever reappeared at Point à Pitre, Gaudaloupe. It attacked first the crews of commercial vessels, and two government schooners; then it made its appearance in the city and at the hospital; newly arrived Europeans were its first victims; among acclimated individuals, and even among *creoles*, this affection assumed a typhoid form, and during its progress, *icterus* was observed from the sixth to the seventh day, and in some cases, black vomit.

In the month of September, the diseases which prevailed at Point à Pitre, were pernicious remittent, the typhoid, and the yellow fever. In the last stages of the yellow fever, we observed subsultus tendinum, convulsive movement of the muscles of the face, petechial spots upon the trunk and limbs; a leaden violet complexion of the skin; comas; delirium, cold sweats, and, in some cases, meteorozation of the abdomen. At *Basse Terre*, Saint Pierre, and at Fort Royal, Martinique, the yellow fever appeared with analagous symptoms. It still rages there with violence, and a letter recently received from Fort Royal informs me, that the yellow fever has assumed a typhoid type.

M. Cornuel, at la Basse-Terre, has made the same observations as MM. Amie and Fazeuitté at la Point à Pitre. He acknowledges striking analogy between the yellow and the typhoid fever, and believes that the same causes produce the first among unacclimated Europeans, and the second among a large number of *creoles*, and particularly among children. These children have been affected with remittent or continued typhoid fever, which produced in many *icterus*, suppression of urine, hiccough, black vomit, and death. Did not Schotte, who wrote in 1785, remark the same progress of the disease, when he declared, that the yellow fever was a synochus the three first days, and subsequently, a typhus? The observation of M. Dalmas, which I have quoted above, proves that in some cases the respiratory function is not exempt from these disorders, which may be produced by the cause of yellow fever. M. Thomas, page 114, says, that in the epidemic of 1822, at New Orleans, many patients expired, as if by suffocation, with a livid color of the face. M. Chabert has mentioned a sensation of pressure upon the chest,

(To be Continued.)

II.—Medical and Chirurgical Science in France.

To a medical friend we are greatly indebted for several recent numbers of the *L'Union Médicale*, from which we collate and translate the following items:

M. Ricord's diagnostic skill in venereal disease, illustrated in the form of an episode.—A few years since, says M. Ricord, (after speaking of the characteristic symptoms of the venereal disease,) a distinguished young physician presented himself to me very much alarmed. Now, said he, to Monsieur Ricord, "I have heretofore had faith in your doctrine; but I find it fail, even in my own case; this is very bad." Saying this, he raised his *chemise*, and said to me, "what is this?" at the same time exposing his breast and back. I examined him and replied: "It is a beautiful syphilitic roseola."

"Syphilitic, do you say," and are you certain of it? Perfectly certain, I replied. "Well, you have condemned yourself. I have never in my whole life had anything but a slight blenorragia; and that was about 13 years ago." Are you, in turn, certain of this? As I am of my own existence, rejoined the patient. Continues M. Ricord: I examined my confrere, from head to foot, and having done this, I said with gravity and an air of solemnity; "Confrere, you have had *recently* a chancre on the right hand, and this chancre was neither seated upon the thumb nor index finger, but upon one of the three last fingers."

"You deal in pleasantries!"

"I joke so little," I replied, that I will go so far in this matter and assert that you have at this moment a bubo. At the same time I touched an *epitrochlean* ganglion, still engorged. Then the doctor, on reflection told me that some months previously that he attended and dressed a female who had chancres, that he afterwards had an ulceration on his middle finger and it healed without much attention. This, I said to him, is, then the cause of your syphilitic roseola. Act accordingly.

Glycerine in diseases of the Skin.—1. M. Startin recommends the following formula in superficial burns, excoriations, chafing, interigo, herpes, sore lips, etc., etc.

R. Gum adraganth, pure, 8 to 15 grammes,
Aqua Calcis, 120 grammes,
Purified glycerine, 30 grammes,
Aqua rosæ dist., 100 grammes.

To be used as a liniment or embrocation over the part affected.

2d. Against porrigo, licheu, lepra, psoriasis, etc., the following:

R. Acid nit. dilut, 2 to 4 grammes,
Sublimat Bismuth, 2 grammes,
Tinct Digital, 4 grammes,
Glycerine purified, 15 grammes,
Aqua rosæ, distill., 225 grmams.

To be employed as a lotion to the diseased surface.

3d. The subjoined recipe has been found useful in arthritic pains, rheumatism, neuralgias, contusions, etc., etc.

R. Comp. Soap Linament, 45 grammes,
Purified glycerine, 4 grammes,
Ext. balladonna, 9 grammes.

The efficacy of this linament may be increased by adding to it a little veratrine.—Ed.

III.—On the Use of Gallic Acid in the treatment of Albuminuria.

By JOHN LYELL, Esq., Surgeon, Newburgh, Fife.

I was much pleased in perusing Mr. Sampson's recent paper, "On the Use of Gallic Acid in Albuminous Urine," as it is a practice corroborative of the beneficial agency I have experienced from the same medicine for several years past.

The same process of reasoning which has led Mr. Sampson, knowing the effects of gallic acid in hæmaturia, to employ it in albuminuria, induced me, upwards of three years ago, to give it a trial in these latter cases, and, bating some exceptions, with the happiest effects.

Passing over the first case, in which I was my own patient, and speedily improved under its use, I shall give a brief detail of the second instance in which it was used by me, as a fair specimen of the cases in which gallic acid may be expected to do good—it resembles Mr. Sampson's fourth case.

Mrs. A——, a married elderly lady, consulted me on Sept. 16, 1846. She had for sometime been in delicate health, but several of her relations having died dropsical, she only got alarmed about herself on the appearance of swelling in the feet and ankles. She had a dirty sallow complexion; her eyelids were puffy; her feet and legs œdematous; and, indeed, ansarca to a certain extent, was apparent over the whole of the body. Examination of the thoracic and abdominal viscera elicited nothing abnormal; the kidneys alone seemed to be at fault; there was a dull pain in the lumbar region, particularly on pressure; the urine was scanty, diminished in specific gravity, and albuminous to one-fifth. After using the warm bath, and counter-irritation over the loins, the patient was put under the use of gallic acid, taking about twenty-five grains daily in divided doses. Speedily, on testing with iron, the acid was found in the urine, and steadily the albumen began to diminish. In ten days, after using about six drachms of acid, every trace of albumen had disappeared. There was still, however, slight anasarca present, to remove which, and expedite the cure, infusion of digitalis was prescribed; this, and a subsequent gentle tonic, (colomba,) removed every ailment. The patient has remained well ever since, being now upwards of three years ago.

This, and several other cases of a similar description, I laid before Professor Christison, in my correspondence with that eminent physician, who immediately subjected the acid to trial, and brought the matter under the notice of his clinical class. This will be seen by referring to "Gallic Acid" in the last edition of his "Dispensatory," second edition, 1848. I thought of publishing a few cases on the use of the acid at the time when first used, but, under the advice of the Professor, I refrained till experience of its benefits had been more matured. The independent evidence of Mr. Sampson certainly says something in its favor. Since the writings of Dr. Bright appeared, the pathological conditions of the kidneys inducing albuminuria, have been much elucidated by the researches of Gluge, Simon, Prout, &c.; yet, however much our knowledge has increased in this respect, our powers of distinctional diagnosis have by no means kept pace with it. Hence the acknowledged difficulty in any given case to predicate the true *origo mali*—whether the organs may simply be congested, inflamed, choked up in the tubes, or in a *sui generis* state palpable to the knife and microscope, but hard to associate with a well defined set of symptoms during life,—or whether, in fact, the kidney be at fault at all, and the evil rather dependent on the quality of the blood, as a few pathologists, in some instances, believe to be the case. It is true, that the use of gallic acid in albuminuria, savors somewhat of empiricism, yet, with all our boasted knowledge, how often are we forced to be empirical in our treatment of disease. I have now used it in very many cases of albuminous urine, often, though not uniformly, with de-

cidedly good effects. When it speedily becomes manifest in the secretion, it usually does good; if it fail, after a day or two, to make its appearance there, no benefit can be expected, and it should be given up. In the albuminuria consecutive to scarlatina. I have scarcely ever used it; counter-irritation, the warm bath, with infusion of digitalis and broom, never failed once in twenty cases to relieve these sequelæ.

I believe, that in most cases of albuminuria, gallic acid may safely be made trial of as a remedial agent, not neglecting, of course, other obvious measures of relief; it will soon indicate those cases it is disposed to benefit. When our differential diagnosis of kidney disease gets more precise, we may be able to prescribe the acid to its appropriate cases at once; till then, we must cautiously feel our way.

NOTE.—Mr. Sampson, late Surgeon to the Salisbury General Infirmary, reports in this number of the *Lancet*, several cases of albuminous urine, for which he prescribed gallic acid, with excellent good effects. He gave it in ten grain doses, three times daily, and gradually increased it up to one drachm per diem. He thinks this remedy is entitled to much confidence in this disease, especially in dyspeptic subjects, attended with a relaxed condition of the gastric mucous membrane.—ED.

IV.—*Animal Grafting, &c*

Professor Berthold, of Goettingen, has just made some interesting experiments on transplantation of the testicles, and concludes from them as follows:—ED.

“1st. That testicles may be transplanted, and will unite with living structures after their removal from the body; not only when placed in their ordinary situation, but even in an abnormal locality. 2d. That the organ, in this new situation, exactly like the grafted branch, retains its specific properties, and secretes its natural fluid. 3d. That the specificity of nerves is not indispensable to the preservation of functions. 4th. That the separation of the testicles does not deprive the individual of the character of his species, when care is taken to preserve this organ in another part of the body; so that it would seem that the action of the fluid secreted in the testicle suffices, by its contact with the blood, to give to the economy the characters peculiar to the species.”

London Lancet.

Part Fourth.

AMERICAN MEDICAL INTELLIGENCE.

Original Communications.

- I. --NOTES of *Microscopic Observations, by the aid of a superior achromatic objective combination, of the one twenty-first part of an inch focus.* Constructed by CHAS. A. SPENCER, of Canastota, New York. *Observations made in the University of Louisiana, by J. L. RIDDELL, M. D., Prof. Chemistry.*

The Spencer lens in my possession, is probably superior to any thing of the kind in the Southern country. It resolves the most difficult test objects upon which it has been tried, such as *Navicula angulata*, with ease, and answers admirably as part of a compound microscope. With a suitable eye piece it defines well up to a magnifying power of more than two thousand diameters. Most of the following observations were made with a power of near eight hundred diameters, the objects having been illuminated either by diffuse daylight or by means of a solar lamp.

Moving Monads.

These seeming organizations appear globular, and seldom exceed in diameter .000025 inches. In many observed instances, I suppose their real forms were not disclosed, as an object too minute to be defined, if perceived at all, would appear circular.

I have observed them in countless abundance in cholera dejections, healthy fæces, moistened arrow root, juice of Irish potatoe, vaccine matter rubbed with water, water color pigments (the cakes of Reeves and Son,) rubbed up with water, gamboge, pus from a sore leg, milk from the cow and from woman, etc., etc. They all manifest usually a vibratory, fitful, indeterminate motion. Occasionally they move off in a continuous direction, and often are seen to go round an obstacle.

I made some experiments upon the moving monads in gamboge.

These are specially abundant, and do not exceed .00002 inches in diameter. They appear in brisk motion, the moment water is present.

1st. Mixing the gamboge water with oil of turpentine, tincture of iodine, or ether, they still move.

2d. Boiling the gamboge water for a few minutes, boiling gamboge in a strong solution of chloride of calcium, or in weak nitric acid, in each instance, they were immediately afterwards seen to possess their usual lively movements.

3d. Boiled in a strong sulphuric acid, their forms are still visible, but they do not afterwards move.

4th. Boiled in strong nitric acid, most of them are disorganized and disappear, and none are afterwards seen to move.

The structure and movements of Blood Corpuscles.

Blood drawn from the finger by the prick of a needle, presents, under the Spencer lens, flattened disks or spheroids, varying in different persons in the equatorial diameter, from .000225 to .000393 inches. Their thickness is from one-fourth to one-half as great. If the blood has run freely from the cut or needle prick, it will often be seen under the lens to coagulate. That is, the disks will be seen to arrange themselves upon each other flatwise, so as to resemble somewhat coins piled up regularly. Nothing has been observed by me in recent healthy serum of blood, but now and then a minute globular monad, sometimes actively moving, sometimes at rest.

After the serum has thickened a little by evaporation, the blood corpuscles look as if they might be membranous sacks, containing globular monads. The visual margins are usually stellated with six or eight to sixteen or more rounded projections, (monads,) and similar projections, indicated by light and shade, are apparent over the surface; giving the idea, that the corpuscles contain from ten or twelve to fifty or sixty monads each. In this connection, I beg to refer to the wood cuts given by Dr. Hort, (page 593, this volume,) in his able article on the distinct and independent vitality of the human blood.

After adding a drop of distilled water to the blood, the appearance of internal organization in the corpuscles mostly disappears, and the visual margin usually seems a complete and unbroken circle.

Adding a drop of saturated solution of chloride of sodium, either to the blood whose corpuscles are distended by endosmosis as above, or to other blood; the corpuscles are immediately seen to be shrunken, and generally warped and irregular in outline, some few presenting a regular stellar, or rather mulberry appearance. A remarkable phenomenon may now be noted. The lean shrunken corpuscles all manifest tremulous, vibrating movements, which appear due to the contained monads. I have observed these movements to continue in salt water for more than 24 hours.

Disintegrating the blood corpuscles as they swim in salt water, by gently grinding them between the plate of glass on which they rest, and the mica slip used to cover them for observation; the monads con-

tained in, and mostly making up the corpuscles, are severed and liberated. The now independent monads may be seen moving in all directions, having an apparent diameter from .000020. to 000026 inches.

Animalcules in Cholera Dejections,

On the 28th February, 1850, Professor James Jones, an accomplished microscopist, handed me a phial of the watery, turbid, alvine evacuations from a cholera patient in the Charity Hospital, the day before. Under the Spencer lens, it revealed animalcules innumerable and of various forms, namely :

1st. Moving miriads, say .00002 inches, more or less, in diameter.

2d. Elongated and moving animalcules, varying in length, but, as a mean, say .000225 inches, and not far from .000060 inches thick across the middle, which is rather thicker than the rounded ends.

3d. A few filiform worms, near 000060, some less, some more, in thickness, and of variable length, say, on an average, .002000 inches long. These possessed a sluggish locomotion.

4th. More numerous by far than all others, a most active little worm, about .000225 inches long, at a mean, with a thickness of body near .000026, measured anywhere from near one extremity to near the other; while both extremities were rounded and enlarged to near the diameter .000040 inches.

They would move indifferently, by a series of tumblings over and over, (I have observed them whirl over as many as five times in one direction in the space of a second,) or by serpentine swimming, apparently by lateral flexions of the body.

Professor Jones and myself, subsequently, examined samples of rice water discharges, from many cholera patients, and also the substances vomited by patients while laboring under cholera. We uniformly found a preponderance of the club-shaped animalcules. The long filiform worms we only saw in about half the instances alluded to.

I have now on hand phials of these cholera dejections, kept some six weeks, in which the club-shaped animalcules exhibit as lively vitality as when first examined.

Animalcules in Healthy Fæces.

Early in March, when the cholera prevailed most, I examined the fæces of healthy persons, for animalcules. I have continued to repeat these microscopic examinations to the present time. The first examination was made upon fluid alvine discharge, from a person who, from excess in eating, labored under a temporary diarrhœa. I found myriads of all the animalcules alluded to as found in cholera discharges, except the third variety, filiform worms.

In consistent healthy fæces, mixed with distilled water, I found, also, a few days later, the same forms of animalcular life, with a very sensible diminution in the number of club-shaped animalcules; and du-

ring the last examination of healthy fæces, I could distinguish but very few of them. The filiform worm (3d) I have not seen in healthy fæces.

On the 11th of April, I carefully examined a green stool of a child two months old. I observed abundance of moving monads, .00002 inch in diameter, elongated oval animalcules, near .000157 inch long, all actively moving, and similar, apparently to those seen (2d) in cholera dejections. I saw nothing else that appeared to have life.

V.—*A response to a Professor, and a Speculation on the Sensorium.**

By BENNET DOWLER, M. D.

[Professor Le Conte, of the University of Georgia, in a communication published in the New York Journal of Medicine for March, 1850, in referring to my "contributions to Physiology," which appeared in the New Orleans Medical Journal for November, 1849, expresses surprise that I did not mention his "experiments and conclusions on the seat of volition in the alligator," published in the New York Journal for November, 1845: In the very next sentence after that in which this complaint is made, Professor Le Conte's own statement, presents as I had supposed a satisfactory vindication of my conduct as to that gentleman's interesting experiments as given by me in the July number of the New Orleans Medical Journal, for 1848. During the following year, (1849,) the "contributions" appeared. In preparing that paper, I, at first intended to give a second time, a full account of Professor Le Conte's able and original paper, not to do justice to him; that I had already done; but to fortify myself by an authority of so high a character, and I now regret, not for *his* sake, but *my own*, that I abandoned my original purpose. That purpose, I abandoned not merely because the restricted limits of the Journal made it necessary to exclude the greater portion of my own experiments, as well as the Professor's, but chiefly, because it appeared to me, after further reflection, inexpedient to repeat in the same Journal, what had been already inserted only a few months before; though deserving to be reprinted *once*, in every journal of medicine in Christendom—inexpedient, *because my* experiments and deduc-

* The response, is included within brackets; the speculation, is somewhat isolated; but let no one read the one, without the other. The response is written solely through deference to the opinions of others. Although advised to this course, privately by the editor of this Journal, I did not think a necessity existed until I saw in the estimable Medical Journal, of Augusta, (Ga.,) a danger of misapprehension. I am quite willing to adopt Professor Le Conte's maxim: *Fiat justitia ete.*

tions were in many respects, fundamentally different from those of Professor Le Conte, though corroborative of his, so far as the phenomenal history of the alligator after simple decapitation is concerned, with one exception, which is this: Professor Le Conte declares that a decapitated alligator cannot have "two separate and independent centres of volition," although his experiments clearly show that the separated head, as well as the body, had each a "separate and independent volition."

Professor Le Conte makes the following statement, in the New York Journal of Medicine, which is, as I thought, and still think, a full justification of my supposed omission: "Dr. Dowler published in the New Orleans Medical and Surgical Journal, for July, 1848, *et seq.*, my [his] experiments quoted in *extenso*, and fully acknowledged their physiological bearings." "These experiments (it is myself that is quoted,) refute the universally received doctrine which localizes sensation, intelligence, volition, &c., exclusively in the brain. After quoting Mr. Solly's views in relation to the seat of sensation and perception, Doctor Dowler further says: 'Now instead of these diluted waters of opinion, let the reader look at Dr. Le Conte's experiments, massive as a mountain of granite.'"

As to "priority in this *field* of investigation," I have yet to learn that Professor Le Conte had preceded me, though, I concede to him priority of publication, in crocodilian physiology. As early as 1841, I had ascertained that the reflex theory was erroneous.

So far as I can learn from Professor Le Conte's paper, his experiments on the *alligator* began, March 10th, 1845, just twenty days before mine. The reason why I published my more recent experiments, is a very good one, namely, these were witnessed by many gentlemen of high professional standing and moral excellence, whose testimony it would be a folly to impeach—a testimony which has been accredited by the most competent critics, as altogether conclusive, with one or two exceptions; exceptions, which appear to proceed, not from any knowledge of the character of the witnesses, not from any attempt to verify the experiments themselves, but from that illusory test of truth, namely, preconceived, pre-advertised opinion. And here, I beg leave to insert a single paragraph by way of episode to my "contributions to physiology," inasmuch as these "contributions," so far as they occupy similar ground with those of Dr. Le Conte, confirm his completely; and it is verity, rather than priority, which is most important. The essay entitled "contributions to physiology" has called out two dissenting critics; the one Hesperian; the other Austral, in geographical position; both write fluently and able; both agree very well, and the dissent of both is of a three-fold import: first, they grieve at the unanimity with which the medical press has approved and encouraged my humble labors; next, they agree that I am damaging what they call physiology, instead of building it up; and, lastly, they say that my experiments, though witnessed by many most enlightened persons both in and out of the profession, cannot be true, and must be "a hoax." They also have several minor strokes of wit against my reasoning from "a single case," and they say that 'they are in favor of *patient dissection*.' If these

gentlemen will pay me a visit, I will engage to furnish "patient dissections" in MS., enough for three months' reading and study, and among these they will find plenty of crocodilians which "drag their slow length along" from volume to volume; or if these gentlemen are willing to encourage, or even tolerate *American* experiments, and will send me a publisher, I will, *without* cost (for the first edition,) put in his hands a few volumes of *experiments*, with or without comment. Of wit and logic I may have none, but of experiments I have an exuberance—more than the treasurers of the States of Ohio and South Carolina are able and willing to put in print.*

Professor LeConte's experiments relate to decapitation: and also to the destruction of the spinal marrow; besides these, mine relate to vivisections of the viscera, and the ganglionic or sympathetic system, together with *transverse*, not longitudinal sections of the spinal cord, with and without decapitation. Professor LeConte maintains the *oneness of volition in the divided animal*; I regard volition in the divided animal, as assuming a plural character, because the divided portions manifest sensational and volitional phenomena, not simultaneously, when completely severed, but in different times, places, velocities and intensities. Hence there must be in these divided portions of the animal, independent faculties, corresponding to these independent phenomenal manifestations; for it is unphilosophical to ascribe the same phenomena in three or more similar cases, to dissimilar causes, or to no cause at all. The Mississippi river descends an inclined plane to the sea, by the force of gravity; but is it logical to assert that the Amazon and Ganges descend by different forces? My plans, experiments, and results differ essentially from Professor LeConte's, and, possibly, from all others, in showing that the transverse division of the cord, in the neck and trunk, without completely dividing the animal, does not prevent the simultaneous action of the head, trunk, tail, and limbs, in a sensational and volitional manner. This astonishing result, to which the several witnesses present bore testimony, is one that I intend more fully to verify as soon as possible, by repeated experiments before witnesses that cannot be gainsayed by closeted speculators who oppose the *vis inertia* of their *opinion*, to palpable facts that are irreconcilable with their system of orthodoxy, or rather, with that of their leaders; therefore, when the latter give up this system, the former ought to do so too.

I could quote several authorities showing that defection to the theory of Bell and others, already exists among these leaders. Their followers ought not to delay their conversions too long. Dr. John Conolly, in his recent Croonian Lectures, published in the London Lancet, (Jan. 1850, Am. Edit.) says: "The yet unsettled state of many important

* My quotations, showing in their own words what physiologists teach concerning the supposed double functions of the nerves, the spinal roots, the excitatory system, etc., are scrupulously accurate, and all who deny this, are bound to adduce the proof of their assertions. In every case this is easier than experimenting; easier than the making of books out of books, though not so easy as following a leader who does all the thinking for one.

questions relative to the nervous system, and the *revolution even now taking place in its theories, or the mere rising up of doubts respecting that great and beautiful theory of sensation and movement which was once supposed the labors of Sir Charles Bell had settled on sure foundation*, tend, at least, to enforce caution. Men, now, of middle age, find the whole face of physiology to have changed since they were students, and the most important parts of the change are quite recent."

The Med. Chir. Rev. for April, 1849, admits that the reflex system of Dr. Hall is no longer believed in England, except by its reputed father; or words to that effect. It is probable that if this gentleman should renounce this system, the believers in this country would renounce it too, without a sigh, or an experiment, whereby to test its truth or falsehood.

Professor LeConte, agreeably to the universal opinion, maintains the doctrine of a centralized sensorium, though he is forced by his own conclusive experiments, to admit that the spot in which the sensorium is located cannot be in the brain, exclusively, but must extend to the spinal marrow, also, in certain animals, among which he places the alligator—a sure step—a bold step for a central sensorialist, but still not bold enough to meet the actualities of the case. In relation to the locality of the sensorium, Dr. LeConte says, that "no half results, no approximatives are sufficient; if sensation and volition are functions of the spinal cord in the lower vertebrata, experiment should give us unequivocal indications of it;" but in his concluding remarks, he recoils from the obvious deductions which his experiments teach: "Experiments were made on the head [of the alligator, after decapitation]—the jaws snapped at anything which touched the teeth, tongue, or lining membrane of the mouth"; while, on the other hand, to use his own words, "the motions [of the headless trunk] appear to have been performed with a perfect knowledge of the end in view; they were particularly directed to that end—were volitional—varied according as the conditions in which they were elicited, altered;—the animal seemed to know, to intend, and to accomplish its definite object", and yet Dr. LeConte appears to repel the inevitable consequences resulting from his own experiments; for he says, "It is hardly possible to conceive the co-existence of *two separate and independent centres of volition and sensation in any animal, because we find it impossible to understand how consciousness can be subdivided*", thereby rejecting the very thing proved by his experiments.

Dr. Le Conte does not even hint, much less admit, the possibility of a diffused sensorium. He is a centralist agreeably to the universally received doctrine of the present day; a doctrine upon which a few hurried remarks will be offered in the sequel, as the present occasion seems to demand. My only motive in contrasting Dr. Le Conte's views with mine, is to show the nature and extent of the experiments, and the conclusions of each, without presumptuously asserting that he is wrong, and I am right.*

* I accept as satisfactory, Dr. Le Conte's explanation of the extensive leap performed by the separated head of the alligator, which I reported in the contributions,

The cultivator of science, must abide the developments of time, the collision of interest, the shock of passion, and the scrutiny of talent, in the confident hope that the high behests of impartial truth will ultimately gain ascendancy.]

Speculations on the Sensorium.

A diffused sensorium is less incomprehensible than one wholly centralized, particularly in the absence of any structural peculiarity as indicative of the latter, not to mention finality, or the adaptation of means to ends. Teleology, the doctrine of final causes, though extremely difficult in application, and often conjectural in its results, is, nevertheless, a most fruitful principle in physiology, being rather synthetical than analytical—*a priori*, because the *a posteriori* is not yet achieved. It looks to the transcendental as a means to the experimental; while, unlike the *vis inertia*, which blindly broods over the ponderous masses of unexplained experiment, the rubbish of countless centuries, it diffuses life and movement everywhere, being to the empirical or experimental philosophy, what the Rosetta stone is to hieroglyphics. Nothing can be more unwise than the rejection or depression of this principle by some of the Baconian philosophers. The all-comprehending mind of Newton, accustomed to rigid demonstration and experimentalism, saw the immense importance of this principle. After reviewing his own vast researches, he observed, towards the close of his life, "it gave him particular pleasure that his philosophy had promoted the attention to *final causes*."

Although the essential *modus operandi* or manner of a finality may be beyond mortal ken, the finality itself is clearly attainable; as in the adaptations of the eye to vision, the muscles to motion, the teeth to mastication, etc. Harvey was led to the discovery of the circulation, not by accident, but by the mechanical adaptations in the veins by means of valves, which showed the purposes of nature by contriving a mechanism favoring the passage of the blood in a definite direction. He saw how the blood *ought* to move, and then he proved that it did so move. In the nervous system adaptation is less manifest, or rather, is less known; nay, it is not known at all. One thing appears certain, namely, that the theories of nervous action hitherto proposed, not only fail to recognize this principle, but run counter to it, violating the evidence that analogy furnishes, such as an assumed nervous fluid without any structures adapted to its circulation; vibrations, traveling impressions, and the like, belong to the same category.

There is no special anatomical point in the brain, in the spinal cord, nor in the ganglionic system, as yet ascertained by structural adaptation, for the exclusive purpose of cognizing sensations, independently of

&c.; which he says "was produced by a rapid and forcible depression of the lower jaw reacting against the plane of the table. Under such circumstances, the point of contact of the anterior extremity of the lower jaw with the table, becomes the *fixed point*, while the point of application of the force is transferred to its posterior or articulating extremity. Upon mechanical principles, such a force, if sufficiently powerful, must project the head upwards and forwards." (N. Y. Jour. Med., March, 1850.) The masséter muscles of the alligator are massive and strong.

the peripheral portion of the nervous system. The neurological tree is planted in the midst of the garden, among the other trees of life, all of which must suffer from central disease or mutilation, as in vivisections. The branches may be lopped off without the same destructive effects which must accompany operations in the centre.

Where (the skeptical may reasonably demand) is this sensorial limbo? this seat of intellectualism and sensationalism? this plenary dualism of feeling and willing, of reception and transmission, of convergency and emanation, of contact between mind and matter? this *ens rationis*? this consolidation of the objective and subjective? this homogenous Me? Is it not rather a spectre from the idealism of Aristotle, and not an honest ghost, but a tenebrosity born of Nox, daughter of Chaos, whose anatomy we know that we don't know?

The hypothesis that the entire mass of the nervous system, an undefined atom or sensorial spot excepted, is the mere instrument of this assumed spot, being nothing but the conductor to and from it, being itself devoid of sensational cognition, is at once gratuitous, improbable, incomprehensible, and contrary to the experience of mankind. If sensation be wholly due to the nervous system, (a questionable point,) a property bestowed by the Creator, which we can only comprehend as an ultimate fact, like gravitation, why should a tangled veil of hypotheses be thrown around it, as an unknown but omnipotent power, working by double sets of undiscovered nerves and traveling impressions, fluids, vibrations, etc? Does nature prefer complexity to simplicity? long routes to short ones? multiform means for accomplishing the simplest ends? Does she lavish her most exquisite workmanship upon the peripheral nerves merely that they may subserve, by indirect and reflex methods, the purpose of some unknown aggregation of pulpy atoms, in the centre, where, nevertheless, all the pains and pleasures, all the healthy and morbid actions of both mind and body are to be realized or sensationalized exclusively? What a vast amount of industry on the one hand, and *inertia* on the other! "Marivaux asked a young and athletic peasant why he did not work? 'Ah, sir!' said he with a sigh, 'you do not know how lazy I am.'" Would it be reasonable to require Queen Victoria or General Taylor, though in the centre of the nation, to do all the work, physical or sensorial, for the entire population?

An able critic, in the Western Lancet, (Feb., 1850,) in a review of my paper, ("Contributions to Physiology,") says, with great clearness and logical force, "we do not see but that it is as rational to suppose that nerves may in themselves possess intelligence, as to locate and limit the whole mind within the brain, and thereby make the nerves mere mechanical media of sensation and volition—unintelligible conductors of ideas. The experiments formerly relied on do not, we think, very strongly support this prevalent opinion. We are told by some, that the office of the nerve is merely mechanical, and that intelligence begins when the nerve enters the brain, and not before. This is the most popular idea of the present day. We are pleased with this idea of mind being diffused throughout the entire body—this *diffusion of soul*,

It is more elevating and expansive than the one that limits its action to one central organ.

"We do not mean to say that our author has no office for the brain to perform; on the contrary, he holds it to possess all the powers hitherto assigned to it; but contends that *all* intelligence is not confined to it. There does appear a necessity for mind in the nerve, or how could it *convey* intelligence."

The exclusively central theory is both complicated and extremely mechanical, without mechanical adaptation—a labyrinth of assumptions, each of which tends but to obscurity, instead of an intelligent plan, or a well developed finality. Many of these difficulties are avoided by the admission of a diffused sensorium; by the admission that the mind generally, as well as specially, cognizes sensations where the changes and impressions really are, whether in the central mass of nervous matter or in the peripheral portions distributed to the organs, and to the surface, the mind feeling in the hand as well as in the head, without the intervention of traveling impressions along nerves which have been strangely denied the power of sensation, and which serve as mere carriers for an imaginary sensorial point, wholly unknown, and all this, for the purpose of explaining what does not really exist, and which, at the same time, serves but to confuse that which does exist.

It may be safely affirmed that no one but a central neurologist, ever imagined that touch or taste took place as a sensation in the brain only, and not in the organ impressed or affected; and even neurologists themselves, are always obliged to talk, believe and to act like other people, without any practical reference to their central theory. That which does not exist, as a sensorial atom or aggregation of pulpy, nervous atoms—or an unknown, yet physical, excitomotory agent which acts in a reflex manner, or an unknown nervous fluid, or an unknown chemical change, or some other equally imaginary agent or agencies, are offered in explanation of self-evident, ultimate and wholly inexplicable facts, namely, we are endowed, we know not how, with the power to feel, to will, and to move.

The doctrine of a diffused sensorium, so far from detracting from the importance of the nervous system, as the agent of sensation, augments its high claims in this respect, through all its associated connections with each living tissue of an organized being; while, on the other hand the centralists degrade the most exquisitely organized portion, in order to exalt an imaginary pulpy point in the centre.

That aggregation of elements and phenomena constituting life, is not deducible from a single tissue or organ, since all contribute something, particularly, the nerves and muscles. Much that is called nervous action is, without doubt, due to vitality or life; and even the nerves themselves, may owe much of their superiority to the vital principle, rather than to any thing inherent in that tissue. The vital principle, in an abstract sense, is, perhaps, incomprehensible, but as expressive of a general fact, it is well understood. That able observer and writer, Dr. Wm. P. Hort, advocates the vitality of the blood, and suggests most ingeniously its applicability as an analogue of sensorial diffusion. Dr.

Hort says, "If the distinct and independent vitality of the blood can be established, it will be a fact in physiology, sustaining by analogy, the *diffused sensorium* in the alligator, &c."* Now, whether the blood contribute directly or indirectly to sensorial action, or is itself a central or peripheral sensorial agent, or a combination of both agents, certain it is, that it furnishes one of the essential conditions of neurological dynamism. The blood probably contributes directly, though subordinatedly, to the result termed sensation—for in many instances, in physiology, as in physics, a special function, or result, has for its antecedents, not a single cause, but a composition of causes, all of which are essential to the finality. The apparently simple path pursued by a planet, is due to a composition of forces, which have for their point of departure the *vis inertia*. The rising of the sun is a result to which the entire solar system contributes essentially.

Besides, if the blood contributes nothing to the essential conditions of sensation, it certainly contributes to, or forms a part of general vitality, without which, the nervous system is but inert matter. It may be, that the life of blood is really the fountain of life to the sensorium itself, whether the latter be central or peripheral, or a union of both. Hence, this may be one of the advantages derived from the universal diffusion of the blood. Hence, the temporary or permanent loss of the sensorial life, which instantly occurs, when the requisite quantity of blood is not transmitted to the general system, by the heart and capillaries, as in fainting. Hence, the return of sensation, and voluntary action, with the renewal or diffusion of the circulation. If, with Hume, we define "a cause to be an object, followed by another, where all the objects similar to the first, are followed by objects similar to the second; where if the first object had not been, the second had never existed," the blood would be found occupying a high place if not a primary element in sensational causation. Experimenters admit that the complete arrestation of the blood (from ligatures, and the like obstructions) causes the loss of sensation and volition. The nervous centres, as the brain and spinal cord, may be greatly injured; large portions disorganized, and yet, the patient may live for days, months, years; but the loss of a large quantity of blood is always speedily fatal. Hence, this is the usual method adopted for killing animals. Even an ordinary blood letting often causes fainting which is almost a temporary death, with loss of feeling and voluntary motion. The circuitous logic, by which exclusive neurologists, seek to explain fainting by means of the nerves, is altogether inconclusive. A short, plain, and direct route is forsaken, the loss of the vital fluid is overlooked, for the sake of a doubtful theory.

The nerve-matter, in its isolated state, is incapable of thinking, feeling, and willing, even though these phenomena might be chiefly due to that tissue as inherent properties, yet, one can seldom be sure that a great function of the system is not the common result of several tissues and organs. The blood in its natural channels, may contribute directly

*New Orleans Medical Journal, March, 1850.

or indirectly to thought. Again, the muscles probably feel, as well as act, independent of the nerves, though only to a limited extent. The latter, may, in every complicated act, contribute directly; or, they may only furnish the essential conditions necessary to the finality, as in the case of the heart's function, where the muscular force is, probably, the predominating principle.

The doctrine of a special, sensorial point, is a mere assumption: that this sensorial point cognizes only by means of transmitted impressions, the nerves serving only as mere conductors, is an assumption. The mind becomes conscious of sensation, without the intermediate act of an entity or transmitted impression. In fact, this neurological doctrine is similar, or rather identical with the exploded doctrine of Aristotle, concerning *images, forms, phantasms, sensible species*, which are not things, or *objects* themselves, but their pictorial representation, intermediary agents, connecting the sentient mind, with the externalities of nature; in a word, impressions and the resulting sensations. Locke, also, maintained that the mind perceived impressions only, not things. Berkeley saw the consequences of this doctrine, and was enabled, thereby, to show that there was no proof of the existence of a material world, inasmuch, as the mind could know nothing but ideas, or impressions. Theorists of this school contend that as the mind cannot act where it is not, it can cognize nothing but its ideas, which, however, answer the purposes of realities. Although centralists do not apply the doctrine of impressions to the same purposes, namely, to show the non-existence of matter, yet they seem virtually to adopt the fundamental idea as good enough for physiology; that is, they regard one point of the nervous system as appropriated to the reception of impressions, which travel along certain, double, nervous tracts, in contrary directions.

The grand error in this system is, the assumption that the mind cannot perceive things, phenomena and relations, but only the contact of the *impressions or ideas of these*; an assumption contrary to common sense and universal experience. The reality of the thing perceived, is self-evident, not the intermediary contact of the idea or impression; and, in a practical sense, every science deserving the name, rests upon this basis; and the sceptic is obliged to adopt it in his conduct, though he may affect to reject it in his theory. The relation between the mind or sensorium, and the object cognized requires no intermediate impinging entity called impressions, but is a direct operation, intuitively perceived as such; as in the case of a diffused sensorium.

As the word *impression* is mechanical, let us try it mechanically, and see how it will work in the matter of war. Not long since, General Taylor made an impression on the periphery of Mexico, on the one side, while General Scott made an impression on the other. The shot which they threw into the walls and castles of Monterey and Vera Cruz, did not reach the sensorial centre of the nation, that is, the capitol. If the impression of spent balls can not only travel, but do even greater execution than the impressing balls themselves, why was it necessary for General Scott to cut his way, inch by inch, to the very cen-

tre of the city of Mexico? How can a physiological impression travel through the masses of the body, without its seal, any more than a cannon-ball impression on the castle of San Juan can traverse the mountains of Mexico to the national palace without its metallic reality? A traveling impression is a fact, or it is not. If it be only a poetical invention, it ought to be made known as such. Who pretends that the Mississippi is really the father of waters, the true Adamic progenitor of all other rivers? Where is Eve, the mother? As a figure of speech it is more flattering than accurate, seeing the Amazon is much more entitled to that appellation. The sacred writings say, "God is a rock;" but geologists never commit the mistake of inquiring whether he really belongs to the silurian or granitic formation. The term *impression*, being definite and mechanical, and with all theoretical, is, even as a figurative term, not a judicious one, wherewith to characterize innervation, or that change termed sensation, of which we know nothing but the fact itself: a change that some ascribe to the circulation of a nervous fluid; others to vibration; others to chemical action, and so forth.

Those who admit that a *little* portion of the nervous system only is endowed with a faculty to feel, might as well admit, at once, the broad principle, namely, that all parts feel. Their sensorial logic, as it now stands, is no better than the ethical reasoning of the actress, Madame-oiselle ———, whose chastity having been called in question, she defended herself by saying, that, although she had had a child, it was a *very little one*!

If any one atom in the centre, or periphery, possesses the power of feeling, so may every atom, for anything that can be perceived to the contrary in the anatomical arrangement of the nervous system. There is nothing to show that the peripheral nerves are mere conductors, insensible instruments, whose sole function is to minister to a sensorial spot or point in the centre.

Nor does this central assumption contribute to prove, what some suppose it proves, namely, the unity of the sentient being, called a person. As the sensorial spot or mass is material, and infinitely divisible, it is no more an intelligible type of unity than the totality of the organized being. The unity of a building consists not in a single brick. The same is true of the nervous skeleton.

So far as consciousness is concerned, an affection of the periphery, as a vaccine pustule, is always referred to the part where the pustulation exists, and not to the central point assumed as the central sensorium commune, as the percipient mind,* and this reference possesses all the force of intuitive evidence.

In no point of view, whether transcendental or experimental, does a central sensorium solve the difficulties of sensation, while it is, in itself, more difficult to understand than any other within the whole circle. All that can be known of the nerves, or of matter, both living and

*The mind alone is sentient and percipient; neither tissues, nerves, or brain could, of themselves, or from any property or change of which they are capable, become, in any sense, conscious of their condition. In the brain alone it [the impression] may be *perceived*." [Kirke & Paget's Phys., 42, 295.]

dead, is its phenomenal history, not its essential essence, not its internalities. That the mind is united with the entire body, and not with a mere sensorial point, is more than probable. That the sensorial activity is more concentrated and more complex, and varied in the centre, than in the periphery, is not denied.

Is it not an assumption to maintain that a wound of the periphery is cognized, not at the place, but solely in an unknown point in the centre, through the intermedium of transmitted impressions? May not the centre furnish the essential conditions only to the peripheral sensation? May not the former partake equally and simultaneously with the latter in the cognition? Does not every one, in spite of the central theory, refer the pain to the spot wounded? Is the wounded part without a sensorium of its own? Why should it be a mere tender, or a runner to an unknown and uninjured point in the brain? Why should not the injured nerves themselves feel? Why should they be but insensible, passive conductors? What an endless complexity! The centralists admit that both hemispheres of the brain are insensible, and may be cut down, slice after slice, to the tubercula quadragemina, without pain to the living animal. Again, pathological anatomy shows that a large portion of the brain may be disorganized by disease, and yet, in many cases, the sensations, voluntary motions, and the intellectual phenomena, remain.

Now, it is questionable, whether the brain, the assumed seat of sensation, cannot better bear the loss of its substance than the peripheral part of the nervous system, ounce for ounce. Has any one ever cut away a great portion, not to say many ounces of the nerves from the limbs and surface, without pain, not to mention death? Is not the fact vouched for by vivisectioners, namely, that the brain proper may be cut away in slices without pain, strong proof against the central theory of sensation?

The evidence relied on by the centralists, so far from establishing their doctrine, appears to me, far more conclusive in favor of a diffused sensorium; that is to say, the paralysis, and insensibility resulting from the division or disorganization of a nerve, do not prove that the nerve is the mere insensible instrument of the brain. It is more rational to suppose, that, as the nerve of the particular part palsied has been disorganized, so, according to all analogy, the function of this part is, from this cause, altered. * Why travel from the part *injured*, to a sensorial point *not injured*, in order to explain the effect produced? If the periphery have, as I contend it has, more or less of the sensorial power, then the phenomena following disorganization of the peripheral nerves or sensoria, are such as might be expected *a priori*. If the periphery were the true sensorium; if the brain were its insensible instrument, merely, it is probable that the destruction of the brain would interrupt the sensorial action and unity of the surface, because no part is wholly isolated or independent of the other parts of the same tissue, not to mention the associated tissues, which either contribute towards the common finality, or furnish the essential conditions for the unity and efficiency of the special function, whatever that may be.

Dr. Reid truly says, that, "Sensation can be nothing else than it is felt to be. Its very essence consists in being felt; and when it is not felt, it is not. There is no difference between the sensation and the feeling of it; they are one and the same thing." Now, if sensational cognition be restricted to sensorial point in the centre of the brain or spinal cord, it can only be known by experience, and every sane person could testify to its truth, since this truth, if truth it be, is not of such a character, so recondite as to require profound learning as in many astronomical calculations. Newton had no more knowledge of nature of gravitation, in itself, independent of its laws, than the savage of the wilderness. A fruiterer can judge as well concerning the taste of a sweet or a sour orange, as a La Place. As, therefore, the most learned physiologist is unacquainted with the nature of sensation, and knows nothing of any central point adapted to that end, his testimony is, in this particular case, very little better than that of the unlearned. If we take the testimony of mankind generally, as to the seat of sensation, perhaps, not one in a million will even so much as think of a point in the brain, as possessing exclusive sensational and volitional jurisdiction, which every one ought to be conscious of, if it be true.

If the fundamental doctrine of phrenology be true, the faculties of the mind have many different seats; a topographical distribution favorable to division, though the system claims vastly too much for the brain; too much for true science.

"Phrenologists," says Dr. Mayo, "have thrown their work into a great number of pigeon holes, and have separated, very arbitrarily, into small parcels, what more skilful theorists would have collected into larger masses." [*Elem. Pathol. Mind*, 20.]

Partial insanity—derangement of special faculties, often in relation to one subject alone, (monomania,) affords a presumptive proof that the mind is diffused, rather than concentrated in one sensorial spot. That a single point should be the seat of all the mental faculties, and their diseases, and that a disease of this point should affect one faculty, and not the others equally seated in this same point, must appear very improbable, and very little analogous to the pathology of diseases in general; as these latter have many seats, and not one only.

The entire oneness or unity of volition, in even the natural or undivided state of an organized being, may be questioned. Simultaneous, different, and conflicting trains of thought, sensation, and volition, are cognizable in both the waking and sleeping states. In dreams, in diseases, and in mental derangement, a multiformity of co-existing volitions seems to be indicated in many cases. Personal identity appears to be lost or divided. The individual imagines himself a plurality or duality, or trinity; one thinking, willing, talking, arguing, disputing, and acting after a particular manner; the other in a manner quite different. Suppose a multiform will, or a leading will, with co-existing sub-wills, the former ruling the latter, (as mesmerists and electro-biologists pretend to rule their subjects), combining the latter, conformably to rational ends, when in health, but during sickness, or mental disease, losing this control and unity; then, it might be expected, that voli-

tional derangements, a loss of oneness, a loss of combining power, would take place, as we find from experience. There appears to be a kind of special will in many of the organs, which is not attributable to the general will, and which is often in opposition to it; and therefore, for the want of a correct term, called involuntary; as the closure of the eye, on the approach of an object that might injure; the withdrawal of a limb from an irritant, during profound sleep; the expulsion of an offending substance, from the glottidian aperture; the ejection of ipecac, from the stomach; the fœtus from the uterus; and many other similar acts. To attribute these actions to instinct, or reflex action, of which we know nothing, is less intelligible than to refer them to a volitional faculty, of which we know much. Even the lowest of these special, isolated, uncombined actions are stamped with the volitional type, not being *blind*, as instinct is supposed to be, but in a great degree intelligential, having, for their purpose, self-preservation.—Writers take great pains to exclude the word *volition*, from their definitions, while the facts by which they illustrate, what they call a *blind power*, are but an enumeration of the most perfect acts or ends, called *volitional*, being the actual finalities aimed at by the latter, namely, the well being of the individual:

“And reason raise o’er instinct as you can,
In this ’tis God directs, in that ’tis man.”—POPE.

If the sensorial spot be so small that it cannot be seen, how much smaller must be the little traveling entities—not metaphors, called impressions! As no microscope can make them visible, it is probable that the strongest believer in their existence would hesitate to take an oath upon the books of Hypocrites, that he ever saw one in all his life. This sentient point, in men not of one idea, as the Kants, the Cuviers, the Shakspeares, the Newtons, and the Franklins, must be excessively crowded, and closely packed.

The functions of the centre, morbid and physiological, are less known than those of the circumference, so far as sensation is concerned. The same may be affirmed of internal, compared with external pathology and therapeutics.

The assumed indivisible character of sensation, personal identity, and the like, I wish to avoid as much as possible, since they are metaphysical questions of no importance, when opposed to palpable facts, showing that the division of an animal, divides its sensation and volition, as plainly as the body itself. The doctrine of unity, or personal identity, how plausible soever it may be, in psychological ratiocinations, cannot destroy facts, though the latter may seem to conflict with the assumed laws of the spirit-land, of which, however, we only know, that we know nothing with absolute certainty.

On the whole, it may be affirmed, with great probability, that the optic, gustatory, olfactory, and auditory nerves, as well as those of a more general character, concerned in touch, in their natural conditions, in connection with the entire system, centripetal and peripheral, constitute so many sensoria for sensational cognition. Admitting (what, indeed, is not the fact) that the unity of the nervous system is such that

the destruction of any one of these sensoria would render the finalities of all impossible, still, the doctrine of diffusion, as appertaining to the whole, as a whole, would not be disproved. A special sensorium may be annihilated without destroying the other sensoria of the general system. For example, the loss of the visual sensorium, or sight, like the lost Pleiad, leaves the remainder of the constellation undiminished in splendor.

In conclusion, I beg leave to add the following remarkable passage by an able experimenter, Dr. Robert Whytt, whose work on the Vital Motions, was published ninety-nine years since, in his native city, Edinburgh: "Not to perplex ourselves with metaphysical difficulties, we shall recite a few experiments and observations from which we are led, by analogy, to conclude that the motions of the separated parts of animals are owing to the soul or sentient principle still continuing to act in them."

NEW ORLEANS, April 25th, 1850.

III.—*Serous Apoplexy of the Lungs.* By GEORGE COLMER, M. D., of Springfield, Livingston Parish, Louisiana.

On the night of April 20th, 1849, I was called to see one John Giles, aged about forty years. On my arrival at his residence, a distance of two miles, about 11 o'clock. P. M., I found him already *dead*, with the following appearances on and surrounding him: Pulse extinct; body still warm and flexible, but gradually becoming less so; feet and hands already cold; the mouth and nostrils completely filled with a white adhesive foam, which projected and receded on the chest, being alternately pressed upon and released; several pints more of the same kind of foam still visible on the bed clothes and floor. The foam was composed of extremely fine vesicles, and resembled much the white of an egg that has, previous to its admixture with the other ingredients, been thoroughly impregnated with air in the process of making what is well known, in the South, at least, by the name of "egg-nog."

The statements of his wife and servants were, in substance, as follows: Although still feeble from several causes that had been acting on him for at least a year, pulmonary hemorrhages among the rest, he had passed the day on horseback, in the woods, in the laborious exercise of "cow hunting," and was, therefore, on his arrival at home about sun-set, considerably fatigued. He, nevertheless, remarked, on retiring to bed some three hours afterwards, that his general health and feelings had certainly much improved of late, and that he felt as if he should soon regain his wonted strength. He had not, however, been many minutes in bed, before he complained of a "salty" taste in his mouth, and told

his wife that he was again attacked by hemorrhage of the lungs. A light was procured, when, instead of blood, *foam*, in considerable quantities, was seen to "boil" out of his mouth and nose. He then, with some difficulty, ordered his physician to be sent for, made a few farewell ejaculations to his wife, and expired.

This form of death is by no means a common one; and, although it may, perhaps, be more generally known than I suppose it to be, yet, in the few standard works within my reach, I can find no mention of it whatever. *Sanguineous* apoplexies of, or *sanguineous* effusions into the lungs, are common enough; but of this form of *serous* apoplexy I can find no account at all; and the only instance in which I remember ever seeing even the *term*, was in a newspaper account, some eight or ten years ago, of the sudden and fatal seizure, with similar symptoms, and whilst walking the streets of that city, of some well known citizen of New Orleans, the cause of whose death was sought for, I believe, by a jury of inquest.

As some few scattering but well marked cases of the *cholera* were seen in the neighborhood about the same time, it has occurred to me, that the cause or causes of the cholera, whatever they were, and of this case of "serous apoplexy of the lungs," may have been identical. In this case, as in cholera, there was a sudden and copious effusion of serous fluid, though poured out into a different organ; and had it not been for the rapid effusion of the air from the lungs, and consequent suffocation of the subject, a *train* of symptoms similar to those of cholera might have supervened before death closed the scene. Whether or not the cholera was co-existent with the case that occurred in New Orleans I do not remember.

It may be as well to remark that, although the deceased had had pulmonary hemorrhages, there was nothing either in his conformation, in his temperament, or his family history, to show any inherited or uncommon tendency towards *phthisis*; and much to favor the supposition of an unusual liability to cerebral *apoplexy*.

IV.—The Editor of the Buffalo Medical Journal and Demonstrative Midwifery.

The editor of the Buffalo Medical Journal, in his February number, made some remarks on *demonstrative midwifery*, which seem to have arrayed a portion of the faculty of that city against him. He assumed the ground that the plan about to be adopted (we believe in the Buffalo Medical School) "of illustrating obstetrical instruction with the living subject, would commend itself to the cordial approval of the

medical profession as well as others." In this it seems the editor, Dr. Flint, was mistaken; for the card inserted in the March number of the Journal, and signed by seventeen physicians of Buffalo, condemns, in strong terms, the practice, and says "it merits a severe rebuke;" because they deem it wholly unnecessary for the purpose of teaching, unprofessional in manner, and grossly offensive, alike to morality and common decency." They conclude their card in these words: "For the credit of the medical profession, we hope this 'innovation' will not be repeated in this, or any civilized community."

The editor, in publishing the card above referred to, makes some very just and sensible observations on the subject, and remarks that Buffalo contains over forty practising physicians, and out of this number only seventeen had condemned *demonstrative midwifery*; and certainly, according to democratic principles, we are left to infer that the practice meets with the approbation of the medical profession, even in Buffalo, taking the voice, or rather the silence of the majority as a test. We cannot speak *ex cathedra* for the profession throughout the United States on this subject; but we believe the great body of the profession will sustain Dr. Flint in the stand he has taken. Look at France, and some other parts of the old world for light and authority on this point; and is it not from such points—places where all the various stages of labor are witnessed by the student, and demonstrated by the teacher, that we have derived the first—the best principles of obstetrical science? Who has ever been taught the true mechanism of labour on a manakin? We commenced the practice of medicine with some acquaintance with manakin labor, never having witnessed the natural process: but we found, when brought to the bed-side, that our speculative knowledge utterly failed us, and we had to learn everything *de novo*.

Hundreds of others have been forced to confess—to deplore their want of knowledge in obstetrical science, just at the moment—in the outset of their professional career, when they stood in need of all the helps to advance them in the world. With these facts fresh in our memory, and many others that might be mentioned, we do not hesitate to speak in favor of "demonstrative midwifery;" and we contend that no student should be permitted to graduate, or at least, enter upon the practice of physic, without having previously attended, under the instruction of his preceptor or professor, one or more cases of labor, and witnessed and marked all its various stages.

Without any desire to enter into this controversy now being waged between the Buffalo editor and a part of the profession of that city, we could not withhold the expression of our honest opinion on this question. In conclusion, we would declare it as our conviction, that our teachers of medicine have, heretofore, devoted too much of their lectures to theoretical medicine to turn out competent graduates; practical *clinical* teaching will, ultimately triumph over those who oppose it as alike "grossly offensive to morality and common decency."—ED. N. O. J.

THE MEDICAL AND SURGICAL JOURNAL.

VOL. VI.]

NEW ORLEANS, MAY 1, 1850.

[NO. 6.]

This number completes Vol. VI. of the *New Orleans Medical and Surgical Journal*. For six years, the Journal has been in existence, and during that period, it has gradually and steadily gained the confidence and support of a large portion of the medical profession in the South and West. Without vanity or affectation, we can safely say, that the work is firmly established, (thanks to our friends), and it shall be our constant aim to add to the value of its pages, by enlisting the best medical talent of the country. Anxious to render equal justice to all, and to promote the interest of our common profession, we have striven to maintain an independent neutrality on all questions of a controversial character; offering the pages of the Journal, however, to those who may be disposed to reason a disputed point, but to abstain from all acrimonious personal allusions. "With no enemies to punish, or friends to reward", we shall endeavor to pursue an impartial course, willing to hear all parties, and award credit to whom it may be due.

Although we close, with this number, our VI. volume, yet, like Sysiphus of old, we must continue our labors, by day and by night, looking for no other reward than the kind approval of a liberal and enlightened profession, and the approbation of the *mens conscia recti sibi*.

Health of the City, &c., for the last two months.—Spring, with its rich verdure—its odours—and its balmy zephyrs, has come, and brought upon its downy pinions, health and prosperity to our citizens. Or, to adopt the elegant language of Horace:

*Diffugere nives, redeunt jam gramina campis,
Arboribusque comæ.*

*Mutat terra vices, et decrescentia ripas
Flumina prætereunt.*

*[Gratia cum Nymphis geminisq; sororibus audet.
Ducere nuda choros.*

During the Spring months, and the first part of Summer, this city is generally quite healthy; and this is especially true, the present season.

This can be explained by remarking that it is too late for our usual winter diseases, and much too early for our summer complaints and epidemics; so that we may designate, as far as health is concerned, this

portion of the year as an interregnum in the sickness of this city. Although the spring has been unusually late and cold—the frost doing much damage to the young crops and fruits of this section of the country, yet with the exception of a temporary increase in the cases of cholera, about the middle of March, we have been favored with general good health. Without any known, appreciable cause, the weather being rather warm and dry, the cholera began suddenly, the middle of March, as just stated, to increase rapidly, as may be seen by the following statement :

	<i>Total.</i>	<i>Cholera.</i>
For the week ending March 9th, - - -	106	6
“ “ “ “ “ 16th, - - -	165	65
“ “ “ “ “ 23d, - - -	234	149

This unexpected increase of cholera created much apprehension in the public mind, and was the cause of exaggerated rumors of sickness and death in the country. In the mean time the Board of Health was busily engaged in investigating the cause of this sudden reerudescence of the disease; they met almost daily and instructed the sextons of the various cemeteries to report to the Board every twenty-four hours. This was done, and the subjoined statement will give the reader a correct idea of the deaths in this city *daily* from the 19th of March up to the 6th of April, about which time the disease nearly ceased :

	<i>Total.</i>	<i>Cholera.</i>
March 19th, - - - -	39	24
“ 20th, - - - -	30	17
“ 21st, - - - -	32	22
“ 22d, - - - -	36	26
“ 23d, - - - -	38	24
“ 24th, - - - -	33	24
“ 25th, - - - -	43	30
“ 26th, - - - -	54	33
“ 27th, - - - -	20	14
“ 28th, - - - -	33	14
“ 29th, - - - -	27	14
“ 30th, - - - -	30	15
“ 31st, - - - -	25	9
April 1st, - - - -	23	10
“ 2d, - - - -	13	5
“ 3d, - - - -	7	2
“ 4th, - - - -	18	6
“ 5th, - - - -	6	3
“ 6th, - - - -	19	5

After this date, the disease had so far declined that the Board omitted a daily return from the cemeteries, and they were made again weekly; and those we continue as follows;

For the week ending April 13th, - - - -	<i>Total,</i>	84	<i>Cholera,</i>	15
“ “ “ “ “ 20th, - - - -	“	99	“	9

The course of the disease, during the time included in the foregoing

statement, is as extraordinary as it is inexplicable, and we are free to confess our total ignorance of its sudden increase and no less rapid decline. The weather, during this exacerbation of the cholera, was, it is true, quite oppressive for the season, and also very dry; and about the time the disease began to abate in violence, the wind shifted to the north and it became quite cool again; hence, it might be conjectured, that the heat aggravated and the sudden fall of temperature, diminished the number of attacks and fatality of the disease.

But on the other hand, these sudden changes have been witnessed again and again during the existence of cholera in this city, and yet no such fluctuations in the disease have been observed.

The number of interments in the Lafayette Cemetery of persons who had died in New Orleans for the month of March, was 54, of which number 24 are reported as having died of cholera.

We have already remarked that the Board of Health of this city was actively engaged in obtaining all the information at their command on the subject of cholera, and at a meeting held March 22d, 1850, the following resolution was adopted:

Resolved, "That this Board feel constrained, by the present state of public health, to advise their fellow-citizens to a strict observance of precautions in the manner of dress and diet; the imprudent use of intoxicating drinks and hazardous administration of cholera nostrums; while at the same time, we have no hesitation in declaring, from the evidence before us, and notwithstanding the great and extraordinary influx of immigrants, there is no epidemic disease in our city at this time."

(Signed.)

A. D. CROSSMAN, *Pres't B. of H.*

A. HESTER, *Sec'y.*

This timely and judicious report greatly aided in allaying the feverish excitement of the public mind on the subject. Although for several days more than half of the deaths from all diseases, were produced by cholera; yet the Board wisely decided to vote against its epidemicity.

On the 30th of March, the Board again issued the subjoined publication:

Resolved, "That the Board of Health take great pleasure in congratulating their fellow-citizens on the marked and decided improvement in the public health, as evidenced in the decrease of deaths since the last report; the statistics before us showing a falling off of fifty per cent. in the sporadic cases of cholera heretofore prevailing."

From this date, the cholera, as will be seen by reference to our statistical table, daily decreased, until the deaths for the week ending the 20th April numbered only nine, and the total ninety-nine; showing a state of public health equal to any city in the world, for its population. Our public and private hospitals are comparatively empty, and no contagious or infectious disease, save a few sporadic cases of measles, are to be found in any part of our city limits. During the middle and latter part of April, the season remained remarkably dry,* with high east, and

*Since the above was written, much rain has fallen, and from present appearances much more may be expected.

north east winds, and a high range of temperature, as will be observed by glancing at our meteorological table for that month.

We have omitted to publish our tables for the last two or three numbers of the Journal, not being able to prepare them in time; this publication will, however, bring it up to date; thus giving a full and complete meteorological abstract for the last six years.

The Board of Health of New Orleans and Lafayette.

The Louisiana Legislature at its late session passed the subjoined act, conferring additional administrative and police powers on the Board of Health. It also, and properly too, embraces the adjoining city of Lafayette within its jurisdiction. Heretofore, the powers of the Board did not extend beyond the limits of the city of New Orleans, and it could do little else than suggest sanitary measures to the authorities, and keep a necrological record of the various city cemeteries. By reference to the act below, it will be seen, that full authority is conferred upon the Board to impose fines upon commissaries and contractors for cleaning the streets, and, on repeated failures to fulfil such contracts, the Board has power to remove the delinquents. In framing the act, it is to be regretted that the Legislature did not place at the disposition of the Board suitable buildings for the reception and treatment of such contagious and communicable diseases as may be brought to the notice of the Board. This serious omission will tend to embarrass the Board in its efforts to check the spread of infectious disease, and render nugatory much of that power so liberally extended to the Board by the act below. The Board of Health is powerless, by the provisions of this act, to prevent the spread of epidemic and contagious diseases; it can make no disposition of such cases; they cannot be received into the Charity Hospital, and must be consigned to the care of some stupid old nurse, far beyond the precincts of decent society and the tender mercies of civilization, to suffer—perhaps to die. Again and again has the Legislature been petitioned, yea, implored, to purchase appropriate accommodations for small pox cases and ship-fever, either originating here, or imported among us; yet, with a total indifference to every claim of suffering humanity, they have as often turned a deaf ear to our entreaties, and left us without remedy and without hope! With a trifling expenditure of the people's money, a suitable hospital might have been established in the vicinity of the city, whither all cases of small pox, ship-fever, and the like, might be transported for treatment, and thus check the spread of these formidable diseases. When it is recollected that a single case of these diseases may act as leaven—disseminate a pestilential affection, it is truly surprising that the assembled *wisdom* of the

State could not see the absolute necessity of placing at the command of the Board ample means to abridge the propagation of these and similar contagious affections. The reader cannot have forgotten that during the sitting of our Legislature for 1848-'49, at a time when ship or typhoid fever was rife in the city, an *honorable* member of the Senate arose and gravely moved to adjourn sine die, in order to save themselves from the withering touch of these lingering diseases. "*Sauve qui peut*" was the watchword, bruited through the halls of the Legislature; but the motion was lost, and the untimely haste of the honorable senator, was thereby justly rebuked into submission.

As the *sanitary police* of the two cities rests, in a great measure, in the hands of this body, we have no doubt our streets, alleys, vacant lots, etc., etc., will be kept as cleanly as the nature of our soil, paving, and climate will allow; nor can it be necessary to remark, that powerful assistance may be obtained to this end by a proper use and direction of the water privileges with which we are so abundantly supplied on every hand. That part of the act *compelling* practising physicians to report all contagious maladies to the Board, will, we apprehend, prove a dead letter, since it will be extremely difficult to obtain such proof as would lead to the conviction of the negligent party. However, we trust the profession will aid, by every means at its disposal, the Board in executing the intentions of the law, and we would fain believe that no compulsory measures will be required to urge medical *gentlemen* to discharge a duty which they owe to themselves and to the public. With these observations we close our remarks and give the act in full:

An Act relative to the establishment of a Board of Health for the city of New Orleans and Lafayette.

SEC. 1.—*Be it enacted by the Senate and House of Representatives of the State of Louisiana in General Assembly convened*, that this Board consist of sixteen members, (including the Mayor of the city of New Orleans,) to be elected by the respective Councils of the city and the Council of the city of Lafayette, twelve from the city of New Orleans, and three from Lafayette, not more than half of whom shall be practising physicians.

SEC. 2.—*Be it further enacted, etc.*, that power and authority are hereby given to this Board to impose a fine on Commissaries of Police and contractors for removing the filth from the streets of either city, for neglecting to conform to the requisitions of the Board. This fine shall not be less than twenty dollars, and for incurring a third penalty, it shall be in the power of said Board to remove any contractor or Commissary who shall fail to perform the duty required by said Board.

SEC. 3.—*Be it further enacted, etc.*, that the Board be authorized to pay the Health Wardens during the period their services may be required, and in which they may perform the duties assigned them, in a sum not less than ten dollars, and not exceeding thirty dollars per month, according to the laborious nature of their duties and the manner in which they may perform them.

SEC. 4.—*Be it further enacted, etc.*, that it shall be the duty of the practicing physicians of said cities, and the families of the deceased, to give a certificate containing such facts in relation to all persons dying within the jurisdiction of the parish of New Orleans and city of Lafayette as may be required by said Board, under a penalty to each in every case of not less than ten dollars, and not more than fifty dollars, unless such excuse be made as will satisfy the Board that such information could not be procured, and it is hereby made the duty of the Undertaker to receive and deliver such certificate to the Sexton of the cemetery to which he conveys the body, as the sole authority to legalize burials.

SEC. 5.—*Be it further enacted, etc.*, that it shall be the duty of the Sextons of the several cemeteries to keep their respective grounds in such a cleanly and drained condition as may be required by the Board, in default of which they shall be subject to such penalties as the Board may prescribe, not exceeding fifty dollars, and for the third penalty the Board shall have the power of removal of such sexton.

SEC. 6.—*Be it further enacted, etc.*, that no deceased person shall be buried in the city of New Orleans or Lafayette out of the limits of an established cemetery, under a penalty of five hundred dollars, without the previous authority of the Board of Health, and no burial shall take place within the said cemeteries, without such certificate as the Board shall deem legal, under the penalties imposed under the fourth section of this act, and the sexton and undertaker shall each be subject to such penalty in not complying with the requisition of the Board in this particular, and for the further prevention of improper burials, it shall be the duty of the sextons to take the name of each undertaker and driver who may bring a body for burial, and record the same in the record book of said cemetery.

SEC. 7.—*Be it further enacted, etc.*, that this Board is hereby empowered to require of physicians, and others attending the sick, 'at all times, to transmit to the Board a statement of such contagious maladies as may exist under their charge, and during the existence of epidemics, or any alarming sickness, a daily statement of the existence and locality of each and every case of disease, and that each physician or other person so attending, refusing or neglecting said duty or requirement, shall be subject to the imposition of a fine not exceeding five dollars in the first instance, and to be increased to one hundred dollars according to the discretion of the Board.

SEC. 8.—*Be it further enacted, etc.*, that in all cases where fines shall be incurred, and it is sufficient that the Board, by a majority of the quorum present, so declare it, under the several sections aforesaid, it shall be the duty of the attorney of the respective corporations to collect the same before any court having competent jurisdiction, and for remuneration therefor he shall be entitled to thirty-three per cent., and the balance shall be paid into the treasury of said Board.

SEC. 9.—*Be it further enacted, etc.*, that it shall be the duty of the Board to appoint from among the physicians composing its body, one whose duty it shall be to visit such ships as may arrive at the respective ports of New Orleans and Lafayette, having sick on board, and it

shall be the duty of said physician to take such steps in relation to the same as may be directed by the Board. One shall be elected for each municipality and Lafayette, to perform the duty in rotation, monthly.

SEC. 10.—*Be it further enacted, etc.,* that it shall be the duty of the Secretary of the Board of Health to publish a weekly statement in a paper of the greatest circulation, published in New Orleans and Lafayette, of the deaths in New Orleans and Lafayette, under the instructions of the Board, stating the particular disease of which each person died.

SEC. 11.—*Be it further enacted, etc.,* that it shall be the duty of the Board to declare vacant the seat of any member who shall fail to attend the regular meetings of the Board, unless absent from the city, or leave from the Board, or such explanation shall be made as shall be satisfactory to the Board, and if not satisfactory, it shall be authorized to fill such vacancy from the same district whence the member came.

SEC. 12.—*Be it further enacted, etc.,* that the expenses incurred under this act, shall be paid by the Councils of the three municipalities of the city of New Orleans and the Council of the city of Lafayette, in proportion to their respective revenues.

SEC. 13.—*Be it further enacted, etc.,* that all acts in contravention of this act are hereby repealed, and it shall go into effect on the passage thereof.

Approved March 21, 1850.

Medical Department of the University of Louisiana.

The annual circular of this flourishing medical school has been placed in our hands. It contains handsome wood-cuts of the University-buildings—Charity Hospital, &c.; and all such information as the medical student may require to enable him to form an opinion of the relative claims of our various medical schools.

The Faculty says, "The act establishing the University of Louisiana, gives the Professors in the Medical Department, the use of the Hospital, as a school of practical instruction. And during the session of the school, it is, therefore, under the charge of the Professors." We fear that the great advantages offered by Hospitals as schools for *practical medicine*, has not as yet been fully appreciated by the Profession; but the time will come, and that soon, when both the teacher and student will not only talk of *clinical* medicine, but the one will hasten to teach, and the other to learn, medicine in the only way in which it can be safely taught. To make a good—a practical physician we must educate all the senses; the touch; the eye, &c., and in this way nothing will be omitted, calculated to convey a correct knowledge of disease.

To teach practical medicine, nothing is equal to the opportunities presented to the student by our great Charity Hospital. Here, he may study the symptoms of disease during life, and inspect the body after death; here, no obstacle is interposed to wrest from science the fruits which justly belong to her; in other words, post-mortem examinations are not only tolerated almost to any extent, but the public actually encourages the practice even in private circles. It is the fault of the Profession if it does not make this one of the first practical schools of Medicine in the United States—in the world.

The vital spark is scarcely extinct before the cadaver is subjected to the knife; before any material alteration can be brought about by chemical change or putrefactive decomposition. (Vide Dr. Dowlers' paper in the last number on the signs of death.) In this able article we are taught to believe that premature inhumation is a humbug; a thing almost unknown in civilized life, and hence an obstacle to early post-mortems is definitively removed. Pathological science is greatly indebted to Dr. Dowler for his fearless exposure of the false deductions of the French Academy of Medicine, executed in the name of M. Bouchut.

But to the circular. By this we learn that the total number of Matriculants for the session 1849-50, was 175, of whom 31 received the degree of doctor in medicine, at the close of the term. The report of the continued prevalence of cholera in this city, doubtless deterred many from our school during the last year; but as the disease will likely be extinct by, or before the next session, we confidently anticipate a large class for the approaching term of lectures.

Our Legislature, as if determined to aid by every possible means the cause of medical education in Louisiana, and to stimulate the faculty to exert itself to make this one of the first medical schools on this side of the Atlantic, generously appropriated at its last session \$25,000 to the Medical College for the purchase of the following articles: We will copy the act entire, in order that the reader may appreciate its bearings:

An Act for the advancement of Medical Education in Louisiana.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Louisiana, in General Assembly convened, That the sum of twenty-five thousand dollars be and the same is hereby appropriated for the purchase of*

1st, Anatomical preparations, illustrative of human and comparative anatomy and anatomical paintings, plates and drawings.

2d. Surgical preparations, illustrative of disease, and surgical paintings, plates, drawings and instruments.

3d. Medical preparations, illustrative of disease, and medical paintings, and drawings.

4th. Obstetrical preparations, illustrative of the science of obstetrics, and paintings, plates and drawings, illustrative of diseases of women and children.

5th. Physiological preparations and apparatus, illustrative of the science of Physiology.

6th. Preparations illustrative of general and special pathology, paintings and drawings.

7th. Pharmaceutical apparatus and preparations, illustrative of *Materia Medica*, and Mineral and Botanical preparations.

8th. Chemical and philosophical apparatus, illustrative of the science of chemistry, for the use of the Medical Department of the University of Louisiana.

SEC. 2. *Be it further enacted, &c.*, That said appropriation shall be paid to the President of the Board of Administrators of the University of Louisiana, and for the purposes aforesaid, on the warrant of the Auditor of Public Accounts, in two instalments of twelve thousand five hundred dollars each, the first instalment to be made on the first day of July, eighteen hundred and fifty-one, the second instalment to be paid on the first day of December, eighteen hundred and fifty-one.

SEC. 3. *Be it further enacted, &c.*, That the said Board shall appoint one or more Professors of the Medical Department of the University, to be recommended by the faculty thereof, to purchase the articles set forth in the first section of this bill, and to defray the necessary expenses thereof, out of the fund appropriated by this act.

SEC. 4 *Be it further enacted, &c.*, That it shall be the duty of the Dean of the Medical Department to keep a catalogue of all the articles purchased under the provisions of this act, to furnish a copy of the same to the Board of Administrators of the University of Louisiana, and another copy to the Legislature, and also to make to the Board of Administrators, and to the Legislature, a full and detailed report of the expenditure made by the faculty, under this act."

Approved, March 21st, 1850.

That part of the act which orders the purchase of "chemical and philosophical apparatus" to illustrate these sciences, is indispensable, as they cannot be properly taught without suitable apparatus. It is, however, a different thing in regard to "surgical and medical preparation," illustrative of these sciences, since these may be obtained from the dead house attached to the Charity Hospital and from private practice.

The anatomical museum of John Hunter, of Tiedeman, of Dupuytren, of Mueller and others, were gathered from the public hospitals and private practice of the day. We venture to assert that there is not a *museum* in Europe that could not be equalled, not to say, surpassed in anatomical and pathological specimens that might be collected out of the abundance of *material* furnished by the public and private hospitals in this city. Then why expend so much for articles and material that could readily be obtained at home at a small expense.

As it regards paintings, drawings, and other preparations of art, we do not believe they are equal to the *fresh* subject, of which we are abundantly supplied, and will be too likely to take the place of such material as is always to be found in this city.

The funds then intended to be expended for "surgical and medical preparations," might be more advantageously appropriated to the pur-

chase of a valuable medical library, which would be less likely to be injured by the climate, and might prove more useful to the students and the Profession.

However, we have every confidence in the judgment and sound policy of the Professors, and believe they will so dispose of the \$25,000 as to enhance the reputation of the school and advance the interests of the Medical Profession in Louisiana.

We are informed, that in a short time, one or more of the Professors will sail for Europe to examine the rich museums of the old world, and to make such purchases as their means will justify and the College requires. The judicious expenditure of the \$25,000 in the manner directed will at once place the Medical Department of the Louisiana University (as far as the facilities for acquiring a thorough knowledge of practical medicine is concerned) upon high ground, and will, we feel satisfied, induce students to flock to this point from every part of the west and south-west.

The faculty being complete in all its appointments, and having the entire control, during the session, of the great Charity Hospital, we look upon the future prospects of the school as unrivaled, and destined to exercise a salutary influence over the Profession throughout this growing section of the country. Soon we may expect to hail students from California, New Mexico, and other newly acquired territories; indeed, from all quarters of the world, attracted hither by the great advantages offered for the acquisition of practical medicine.

Females and their Diseases in the South.

We publish the following interrogatories addressed by E. T. Tilt, M. D., of London, to Professor Warren Stone, of New Orleans, relative to the subject of *menstruation* and *parturition* among the females of this country.

The questions propounded below, if properly and carefully answered, would elicit much curious and useful information, and we publish them with a view to direct the attention of the Profession in this latitude to this interesting subject:

Questions relative to the system of generation submitted by E. T. Tilt, Esq., M. D., physician to the Farrington General Dispensary and to the Paddington Free Dispensary, *for the diseases of women and children.* 40 Gloucester Road, Hyde Park, London.

Menstruation.

I.—What is the average age of first menstruation in the four distinct

classes of women which constitute your female population? I. Women of European origin. II. Negro women. III. Native Indian women. IV. Mulatto women. Can you favor me with a table showing the age at which a certain number of each of these four classes first menstruated?

II. Are the phenomena of menstruation in each of the four classes attended by the same irregularities as in England?

III.—Is dysmenorrhœa in each of the four classes as frequent, and what cause can be assigned for it?

IV. Is suppression in each of the four classes as frequent, and what causes can be assigned for it?

V.—Is menorrhagia in each of the four classes as frequent, and what causes can be assigned for it?

VI.—Is leucorrhœa in each of the four classes as frequent and what causes can be assigned for it?

Parturition.

I.—At what age do the natives, negro or mulatto women marry and bear children?

II.—At what age do they cease to bear children?

III.—What number of children do they usually bear?

IV.—Is sterility frequent among your four classes of women, and what causes are assigned for it?

V.—Is parturition attended by equal changes amongst the negro, mulatto and natives, as it is amongst your women of European origin, and what are the accidents by which it is most frequently attended?

VI.—How soon do the women of each of the four classes rise after parturition?

VII.—Is puerperal fever known amongst the natives, negroes and mulattoes?

VIII.—Is puerperal insanity known amongst them?

IX.—How long do the negro, mulatto and native Indian women suckle?

X.—Does long suckling prevent conception and induce insanity?

XI.—Is ascites common amongst the negroes, mulatto, and native Indians?

XII.—Have you met with ovarian dropsy amongst the natives, mulattoes or native Indians?

Letter on Malignant Cholera. Addressed to FRED. B. PAGE, M. D., of Ascension, La., by JOHN W. HUNT, M. D., of New Orleans.

DR. PAGE—*Dear Sir:* When premonitory symptoms of Cholera are complained of, I administer, with much success, from twenty-five to thirty or forty drops of laudanum, with a teaspoonful or a teaspoon and a half of a mixture containing equal parts of sulphuric ether and spirits of camphor, and I cover the stomach and bowels with a large mustard plaster, which is to be left on until it irritates the skin very freely. The diet to be mild. If relief seems to be afforded by this, as it usually will be, I repeat it on any threatening of a recurrence of the same symptoms. This mixture is almost always useful. When it does not succeed fully, the evacuations will be found not only loose, but altered from a healthy state. Under these circumstances, to check the purging and restore a healthy condition of the bowels, I enjoin strict diet, rice water, gum water, arrow-root, etc., and the following pills: Blue mass, grs. xv, rhubarb, grs. xx; acet. morphia, grs. ij; div. in No. 5, and give one every two and two and a half hours. If these pills check the purging, let them remain quietly in the bowels for several hours, and then carry them off with moderate doses of magnesia, repeating the magnesia every day or two, until the evacuations become natural.

When there is a well marked attack of cholera, keep the legs and arms warm by mustard plasters, and frictions, with warm spirits of turpentine and mustard, and hot bricks to the feet; place large mustard plasters over the stomach and bowels, to be followed by a large fly blister, and apply a mustard plaster, also, along the whole length of the spine, especially if there be cramps. If the patient is very low, with a white cold tongue, give him a mixture of camphor, ether, and laudanum, repeated from time to time, and other active stimulants; and, as soon as the tongue becomes warmer, and he re-acts a little, commence with the following powders: calomel, one scruple; powdered camphor, fifteen grains; acet. morphine, two and a half grains; div. in No. 5, and give one every two and a half or three hours. Purge these off afterwards as the first. If the stools are frequent and exhausting, either in cholera, or the premonitory stages, check them by injections of a gill of starch water, and from one half to one teaspoonful of laudanum, with a strong decoction of rhatany-root. For drink give rice and gum water, in small quantities, cold, or even iced, or mint tea.

Allay vomiting by the mustard plasters and blisters, or cold gum-water, soda-water, mint tea, and weak lime water, in tablespoonful doses. In the low stages, with cold tongue, I sometimes order for obstinate vomiting, salt and water—a tablespoonful of fine salt to a tumbler of hot water. This vomits freely, and often diffuses heat over the body, and afterwards allays the irritability of the stomach, when we are enabled to commence with the powders.

If the skin is warm, and the pulse pretty good, in any case, and the stomach quiet, we can substitute five grains of rhubarb in each powder for the camphor, which is stimulating.

If there be headache, avoid giving much opium. If there be much headache and stupor at any stage of the disease, or convalescence, apply a blister behind the neck, and cold to the head, if the skin be warm.

Among the stimulant tonics, when they are necessary, I rank quinine very high, and in extreme cases have given it in large quantities, in five or six grain doses, or more, every ten or fifteen minutes, lessening the quantity and beginning with the powders as reaction takes place. Cupping and leeching, etc., are valuable adjuvants, and should be had recourse to as occasion requires.

Such is a very hasty sketch of the plan of treatment I have pursued all the spring, and I think if you pursue the same course, you will have every reason to be satisfied with your choice. I wish I could draw it out more in detail, but I am too much pressed for time, and your own judgment will supply every deficiency. I hope, however, you may be fortunate enough to avoid all necessity of trying your hand at it. If the disease breaks out with any force on the plantations, I advise you to have ample assistance to aid you by all means.

Very truly yours, etc.,

JOHN W. HUNT, M. D.

NEW ORLEANS, 13th June, 1833,

NOTE.—The above letter was addressed to Dr. Page at an early period of the epidemic in 1833, and has lost none of its interest or value at the present time. It will be seen that, after passing through three several cholera seasons, we have added little to the therapeutic treatment of the disease since that period.

The talented author, who died in the summer of 1833, was one of the most observing and accomplished physicians of this city, and those who knew him intimately, continue to cherish his memory, and lament the melancholly circumstances which led to his untimely decease.



Southern Medical Reports. By E. D. FENNER, M. D., of New Orleans

We bespeak for the *Southern Medical Reports*, now passing through the press at the North, a generous support from the Profession. Dr. Fenner left this city some weeks since to superintend in person this publication; and from a knowledge of the plan adopted, and the matter they will contain, together with the known zeal and indefatigable industry of the editor, we confidently look for a mass of statistical and miscellaneous medical intelligence nowhere to be found on the diseases and climate of the South and West.

Great labor has been expended and heavy expenses incurred in preparing and publishing these reports ; and we sincerely hope the worthy author will be liberally rewarded for his industry.

They may be expected some time during the latter part of May or the first of June, 1850.

Semi-Annual Appointments to the New Orleans Charity Hospital.

At a meeting of the Board of Administrators of this Institution, held ———, 1850, the following appointments were confirmed :

For the *surgical wards*, Drs. A. Mercier and J. W. Bradbury. For the *medical wards*, Drs. Jones, Kovaleski, McGibbons, Canter, Stull, Cochrane, Hale and D. S. Gans. Dr. J. P. C. Weirdestrandt was re-appointed *resident surgeon*, a post which he has occupied eight or nine years, with so much credit to himself and advantage to the hospital.

M. Boyens, re-elected apothecary ; and H. Vander-Linden, chief clerk, with J. V. Louberc, as assistant clerk.

This Hospital, with its accessory buildings, occupies an entire square three sides of which are covered with magnificent three and four story buildings. The main building fronts on Common street, and the two lateral wings, extending in the rear, the depth of the square, are destined, one for the accommodation of female patients, the other is used as a refectory, laundry rooms, and the accommodation of the Sisters of Charity. The space between these two wings and in the rear of the main building, is planted with shrubbery and intersected at intervals with elegant walks, covered with shells and pebbles. Across this vacant square, runs a rail-track from one wing to the other, which serves to convey the furniture, goods, provisions, from one wing to the other. The hospital buildings can easily accommodate about 1200 patients ; the female being separated from the male department, an arrangement at once called for by every consideration of decent propriety and the usages of civilized society. No endemic or contagious disease is at present prevalent in the Hospital ; indeed, the health of the Institution is most satisfactory ; the daily admissions for the last month being very small.

Quarterly Report of the United States Marine Hospital, for the quarter ending March 31st, 1850.

ADMISSIONS.

Diseases.	Jan'y.	Feb'y.	March.	Total.	Diseases.	Jan'y.	Feb'y.	March.	Total.
Abscess, - -	2		1	3	Hemorrhage, p.		1		1
do. of Liver,	1			1	Intemperance,	1			1
do. Prostate		1		1	Icterus, - -	1	1		2
Bronchitis, -	5	2		2	Indigestion, -		2		2
Contusion, - -	1			1	Necrosis, phal.		1		2
do. lumbar vert.		1		1	Ophthalmia, -	1	1		2
Consumption, -	3	1		4	Orchitis, -	2	2	2	6
Colic, bilious -	1			1	Oedema Glottis,			1	1
Cystitis, chronic	1			1	Paronychia, -	4	2	1	7
Constipation, -	1			1	Pleuritis, - -		1		1
Cholera Morbus,	1			1	Pneumonia, -			1	1
Carbuncle, - -			1	1	Psoriasis, (invet.)	1			1
Dysentery, - -	4	3	8	15	Parotid, (enlarg.)			1	1
Diarrhœa, - -	3	5	4	12	Rheumatism, 23		5	8	36
Debility, general	2	1		3	Syphilis, - -	15	21	9	45
Dyspepsia, - -		1	1	2	Strict. urethra,	2	1	1	4
Fever, interm. -	8	7	2	17	Spleen, (enlarg.)	1			1
“ Remit. bilious	3			3	Ulcers, - -	8	6	2	16
“ typh. (Chagres)	6	2		8	Variola, - -	3	2	1	6
“ Typhoid, - -	5			5	Vertigo, - -			1	1
Frostbitten, - -	1			1	Varix, ex. ven.	1			1
Fistula in ano,		1		1	Wounds, gun shot		1		1
Fract, inf. maxill,	1	2		3	“ contused,		2	3	5
Gonorrhœa, - -	3	5	3	11					
Gastralgia, -			3	3					
Gastro enterite,			1	1					
						115	81	55	251

Died of, in	Jan'y.	Feb'y.	March.	Total.	Died of, in	Jan'y.	Feb'y.	March.	Total
Ascites,	1	1		2	Fever, bil. rem.	2			2
Abscess Liver,			1	1	Hemorrhages, pul.	1			1
Consumption,	4	2	1	7	Oedema glottis,			1	1
Cholera Morb.,		1		1	Pneumonia,			1	1
Contus, lumb. vert.	1			1	Variola (confl)	1			1
Dysentery acute	1			1					
do. chronic,		1		1		9	10	4	23
Fever, (Chagres,)	3			3					

Discharged from the Hospital, January, 104. February, 87. March, 72
 Total, - - - - - 263

RECAPITULATION.

Remaining under treatment, January 1st, 1850. - - - - - 104
 Admitted during the quarter, - - - - - 251
 Total, - - - - - 355

Discharged during the Quarter, - - - - -	263	
Died, - - - - -	23	
	<hr/>	
	236	286
Remaining, April 1st, 1850, - - - - -		<hr/>
		69

SIR:—As you request, I send for your Journal the above report of the United States Marine Hospital for the quarter ending March 31st, 1850.

With great respect, your obedient servant,

P. B. McKELVEY, M. D.

A. HESTER, M. D.

Abstract of a Meteorological Journal for 1849. By D. T. LILLIE & Co., at the city of New Orleans.

Latitude, 29 deg., 57 min., Longitude, 90 deg., 07 min, west of Greenwich.

WEEKLY, 1849,	THERMOMETER			BAROMETER.			Course of Wind.	Force of Wind, Ratio 1 to 10	Rainy days.	Quantity of Rain. — Inches.	
	Max	Min.	Range.	Max	Min	Range.					
Oct.	27	75.0	54.0	21.0	30.30	30.00	0.30	N.	3	1	0.410
Nov.	3	74.0	54.0	20.0	30.35	30.09	0.26	N.	2 1-2		
"	10	79.0	47.0	32.0	30.19	30.06	0.13	S. E.	2 1-4	1	0.180
"	17	73.0	46.0	27.0	30.09	29.94	0.15	S. E.	2 1-2	1	0.075
"	24	69.0	51.0	18.0	30.04	29.90	0.14	E.	2	2	1.760
Dec.	1	73.0	56.0	17.0	30.28	29.65	0.63	E.	2 1-4	4	2.685
"	8	71.0	44.0	27.0	30.24	29.60	0.64	N.	2 3-4	2	0.930
"	15	70.0	33.0	37.0	30.46	29.98	0.48	E.	2 3-4	4	0.655
"	22	76.0	41.0	35.0	30.30	30.05	0.25	S. W.	2 1-4	1	0.020

*4

Abstract of a Meteorological Journal for 1849 and 1850. By D. T.

LILLIE & Co., at the city of New Orleans.

Latitude, 27 deg., 57 min., Longitude, 95 deg., 07 min., west of Greenwich.

WEEKLY.	THERMOMETER.			BAROMETER.				Force of Wind.	Rainy days.	Quantity of Rain.
1850.	Max.	Min.	Range.	Max.	Min.	Range.	Course of Wind.	Ratio 1 to 10.		Inches.
March 2d.	82	26	26	30.08	29.90	0.18	s. s. w.	3	1	0.180
" 9th,	81	48	33	30.12	29.90	0.22	s. E.	3 1-2	0	0.000
" 16th,	87	39	48	30.16	30.05	0.07	s. w.	3 1-2	3	0.185
" 23d,	88	37	51	30.17	29.90	0.26	s. s. w.	3	2	0.965
" 30th,	75	34 1-2 40	1-2	30.12	29.70	0.47	N.	2 3-4	1	1.020
April, 6th,	76	49	27	30.07	29.78	0.29	s.	2 1-2	2	2.125
" 13th	76	39	37	30.10	29.92	0.18	N.	2 3-4	1	0.170
" 20th	85	46	39	30.23	30.08	0.15	s. w.	2 1-4	0	0.000

Abstract of a Meteorological Journal for 1850. D. J. LILLIE & Co., at the city of New Orleans.

Latitude 29 deg., 57 min., Longitude 90 deg., 7 min. west of Greenwich.

WEEKLY.	THERMOMETER.			BAROMETER.				Force of Wind.	Rainy Days.	Quantity of Rain.
1849	Max	Min.	Range.	Max.	Min.	Range.	Course of Wind.	Ratio 1 to 10.		Inches.
Dec. 29. 1850.	74.0	39.0	35.0	30.20	30.05	0.15	s. w.	2 1-2	1	0.180
Jan'y 5	70.0	34.0	36.0	30.35	30.05	0.30	N.	3 1-4	1	0.160
" 12	74.0	52.0	22.0	30.15	30.00	0.15	s. w.	2 1-2		
" 19	78.0	47.0	31.0	30.10	29.80	0.30	E.	3	3	4.600
" 26	78.0	40.0	38.0	30.15	29.80	0.35	s.	3 1-4	1	4.070
Feb. 2	79.0	48.0	31.0	30.30	29.90	0.90	s. E.	2 1-4	1	2.870
" 9	71.0	30.0	40.0	30.50	29.80	0.90	N.	3	2	3.297
" 16	72.0	37.0	45.0	30.10	29.70	0.40	w. s. w.	3 1-4		
" 23	74.0	47.0	27.0	30.20	30.05	0.15	w.	2 1-2		

TO OUR SUBSCRIBERS.

With the next, or July number, we commence the seventh volume of the New Orleans Medical and Surgical Journal.

The work is now firmly established, and from the flattering encomiums so liberally bestowed upon it by the leading medical writers in this country and Europe, it is evident that its standard of Literary and Professional excellence, is as high as that of any similar publication of the day. But it is not our purpose here to speak of the success which has crowned our efforts to increase the value of the work and extend its circulation, or to boast of the praises so liberally bestowed upon it; but we wish to say a word on *business matters* to our patrons and friends.

While we return our thanks to the *majority* of our subscribers, for their promptness in remitting the amounts due us, we must also urge upon *others* the necessity of closing their accounts. There is a *large* amount due the Journal, and as our expenses have been of late increased, by our endeavors to increase the interest and value of the Journal, we *must* take some measures to collect.

We have before called the attention of our subscribers to this matter, and a number responded to our call. Still some, through forgetfulness or some other cause, have neglected to comply with our requests. Many subscribers are three or four years in arrears and it is *to such* that we particularly address these remarks. We know the difficulty of obtaining proper funds to transmit, but a gold piece will go as safely in a letter, as a bank note, if properly secured by a little wax. Postmasters are allowed by law to frank letters to Publishers, and will give their receipts for monies received from persons for this purpose. After much consideration, we have come to the conclusion to *stop sending the Journal, to all those subscribers, who are more than two years in arrears*. We regret the necessity which compels us to this course, but we have waited patiently, till we think that circumstances will justify the step. We shall wait a reasonable time after the publication of this notice, to receive remittances, and to hear from those of our subscribers to whom it is particularly addressed. Then, we shall stop the Journal to those who do not attend to our request, and take some other means to collect the amounts due.

We would say to those of our friends who have complete sets of the Journal, that we are prepared to bind them in good style, and on better terms than any other house in the city; and if some numbers are missing, we will make them complete without extra charge, if we have the numbers lost.

WELD & CO., 68 CAMP ST.,
Publishers N. O. Med. & Sur. Journal.

New Orleans, May 1, 1850.

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